New Jersey Department of Health and Senior Services

Influenza Pandemic Plan

September 2002

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Executive Summary

This planning document has been designed to ensure that New Jersey is prepared to implement an effective response before an influenza pandemic arrives. The response methods in this plan will help minimize morbidity and mortality, and maintain the operation of essential community services in the event of a pandemic outbreak.

Influenza viruses are unique in their ability to cause sudden, pervasive illness in all age groups on a global scale. Global influenza epidemics are referred to as "influenza pandemics". Three such pandemics have occurred in this century alone, causing millions of deaths. Experts consider that another influenza pandemic is inevitable. Over the past several years, public health officials and the Centers for Disease Control and Prevention (CDC) have supported and encouraged state and local influenza pandemic planning initiatives, including an initiative in New Jersey.

New Jersey's geographic and demographic characteristics make it particularly vulnerable to importation and spread of infectious diseases, including influenza. The New Jersey Department of Health and Senior Services (DHSS) has estimated that an influenza pandemic could result in as much as 1,500,000 million outpatient visits, 35,000 hospitalizations, and 8,000 deaths.

The plan is organized according to the stages of a pandemic: Pre-pandemic, novel virus alert, pandemic alert, pandemic, pandemic second wave, and pandemic over. Within each stage, the plan addresses five activities: Surveillance, vaccine delivery, antiviral agents, communications, and emergency response. The plan has been developed to complement the State Emergency Operations Plan. Two concluding sections specifically identify the duties of the DHSS and the actions that local health departments need to take during the pre-pandemic period in order to be prepared.

New Jersey's recent experience with bioterrorism highlighted the necessity of rapid and accurate dissemination of information to both the Department's professional partners and the public. The Department's website will be emphasized as a coordinating resource for timely communication of vital information to healthcare providers, emergency responders and public health professionals, as well as for status updates of benefit to the general public.

The plan was developed in close collaboration with partner organizations throughout the state and was reviewed by numerous individuals and organizations in the public and private sectors.

I. Introduction

A. Background and overview

Influenza viruses are unique in their ability to cause sudden, pervasive illness in all age groups on a global scale. Annual influenza epidemics cause approximately 20,000 deaths per year in the United States. Global influenza epidemics, which involve strains of Influenza A virus to which large proportions of the population are susceptible, are referred to as "influenza pandemics". Pandemics occur because of the ability of the influenza virus to change into new types or strains as a result of antigenic "shift". The three characteristics of a pandemic are: the development of a novel strain of virus (a strain to which a large proportion of the society is susceptible to because of lack of prior exposure), transmissibility of the strain from person to person, and the virulence of the viral infection (the capacity to cause severe morbidity and mortality). Three such pandemics have occurred in this century, one of which-the infamous "Spanish flu" of 1918- was responsible for more than 20 million deaths worldwide, primarily young adults. Most public health officials consider another influenza pandemic inevitable and that there will be only one to nine months between the time that a novel influenza strain is identified somewhere in the world and the time that outbreaks begin to occur in the United States.

New Jersey's geographic and demographic characteristics make it particularly vulnerable to importation and spread of infectious diseases, including influenza. It is the most densely populated state with a population of over 8.4 million people, including large populations of immigrants. Nearly half of New Jersey's population lives in the urban/suburban areas of the northeastern third of the state near New York City. New Jersey has more roadway per square mile of land than any other state. It is an important transportation route in the Washington D.C.- Philadelphia - New York corridor with over 210 million vehicles traveling through this route per year. Air traffic includes Newark International Airport, which provides transportation to over 31 million passengers per year, nationally and internationally, and is the busiest airport in the tri-state area. New Jersey is also a major ocean transport center with several major shipping yards. There are over one half million commuters using the bridges, tunnels and train network systems connecting New York and New Jersey every day. New Jersey is home to seven Federal Department of Defense military installations and eight U.S. Coast Guard bases.

The New Jersey Department of Health and Senior Services (DHSS) has estimated that an influenza pandemic with gross attack rates of 15 to 35 percent (i.e., the percentage of the population that becomes clinically ill due to influenza) could result in 500,000 to 1,500,000 outpatient visits, 15,000 to 35,000 hospitalizations and from 3,500 to 8,000 deaths. Demands on health services under these conditions would overwhelm the state's health care delivery system.

An influenza pandemic plan is needed to ensure that New Jersey is prepared to implement an effective response before the next pandemic arrives. New Jersey is participating with a number of other states in an initiative to develop state influenza

pandemic plans, following guidance from the Centers for Disease Control and Prevention (CDC), with funding from the Council of State and Territorial Epidemiologists.

The plan developed here by the DHSS is based on the following stages of an influenza pandemic outbreak as defined by the CDC in its document, *Pandemic Influenza: A Planning guide for State and Local Officials (version 2.1)*, with a modification to be consistent with the World Health Organization (see Appendix 1).

Pandemic Phase	Definition
Pre-pandemic	-No novel or new influenza virus has been detected anywhere in the world
Novel Virus Alert	-A novel virus detected in one or more humans -Little or no immunity in the general population -Potential, but not inevitable precursor to a pandemic
Pandemic Alert	-Novel virus demonstrates sustained person-to-person transmission and causes multiple cases in the same geographic area
Pandemic	-Novel virus causing unusually high rates of morbidity and/or mortality in multiple, widespread geographic areas -Further spread with involvement of multiple continents; formal declaration made
"Second wave"	-Recrudescence of epidemic activity within several months following the initial wave of infection
Pandemic over	-Cessation of successive pandemic "waves", accompanied by the return (in the U.S.) of the more typical wintertime "epidemic" cycle.

B. Purpose and organization

The purpose of this influenza pandemic plan is to provide a protocol for the New Jersey Department of Health and Senior Services (DHSS) on detection and response to an influenza pandemic and to provide guidance to local health departments in the development of their influenza pandemic plans. The response methods outlined in this plan will help to minimize morbidity and mortality and maintain the operation of essential community services in the event of a pandemic outbreak.

The plan is organized into five sections. The first section lists the assumptions that underlay the plan. The second describes the organization and responsibilities related to the command and control functions of the influenza pandemic response. The third section addresses the concepts of operation within each stage of the pandemic according to five components: surveillance, vaccine management, antiviral medications, communications, and emergency response .

The purpose of each component is as follows:

Surveillance: Describes procedures that will be used in New Jersey to detect and characterize circulating strains of influenza virus and generate epidemiologic information.

Vaccine management: Describes the system that will be used to order, store, distribute, administer, and track influenza vaccine during a pandemic.

Antiviral medications: Describes current uses and limitations of antiviral medications and their impacts during a pandemic.

Communications: Describes procedures to ensure accurate and timely information to those who need to know.

Emergency response: Describes the systems and information that will be used to ensure maintenance of essential medical and other community services in the event of a pandemic.

The fourth section describes the responsibilities of the DHSS within each of the five components, and the fifth section provides checklists for Local Health Departments (LHDs) within each of the five components.

A list of acronyms is in Appendix 2.

C. Assumptions

The following assumptions guide the development of this plan:

- An influenza pandemic in New Jersey will present a massive test of any emergency preparedness system. Advance planning could save lives and prevent substantial economic loss;

- An effective response to an influenza pandemic will require the coordinated and committed efforts of a wide variety of private, public, and non-profit organizations;

- Although pandemic influenza strains have emerged mostly from areas of Eastern Asia, variants with pandemic potential could emerge in New Jersey or elsewhere in the United States;

- At best, there will be no more than nine months between the time of the first novel virus alert and outbreak of the full pandemic;

- A pandemic will pose significant threats to human infrastructure responsible for critical community services in health and non-health sectors, due to widespread absenteeism;

- Effective preventive and therapeutic measures (vaccines and antiviral drugs) may be in short supply;

- There may be critical shortages of health care resources such as hospital beds, mechanical ventilators, and morgue capacity;

- Dissemination of timely and accurate information about the pandemic is one of the most important facets of pandemic preparedness and response;

- Assuming that prior vaccination may offer some protection, even against a novel influenza variant, the annual influenza vaccination program, supplemented by pneumococcal vaccination when indicated, is a cornerstone of prevention;

- Surveillance of influenza disease and virus will provide information critical to an effective response;

- The federal government cannot be relied on to assume all costs for purchase of vaccines, antiviral drugs and related supplies.

II Organization and responsibilities

Influenza pandemic planning and response require special emphasis on certain functions, particularly those under the domains of health agencies at the federal, state and local levels. In the event that the state Emergency Operations Center is activated due to an influenza pandemic, these functions are essential components of the state's emergency response. Support and cooperation from the private sector are critical for the management of a pandemic.

A. Federal

The Centers for Disease Control and Prevention (CDC) is the primary agency at the federal level with influenza pandemic responsibilities, including:

- Monitoring and surveillance nationally and worldwide, in coordination with the World Health Organization;

- Identification and announcements of the beginnings and terminations of the various phases of a pandemic;

- Assessment and enhancement of vaccine and antiviral supply and coordination of public sector procurement;

- Development of guidelines for prioritization of vaccine delivery;

- Liability protection for vaccine and antiviral manufacturers, and for persons who administer vaccines and antiviral medications as part of an influenza pandemic;

- Development of a national clearinghouse for vaccine availability information;

- Coordination of vaccine distribution at the national level;

- Development of a vaccine adverse effects surveillance system at the national level;

- Development of recommendations, guidelines, and information templates that can be adapted and used as needed at State and local levels;

- Development of pandemic planning training modules and table top exercise templates.

B. State

1. The *Governor* of New Jersey designates the *Commissioner, Department of Health and Senior Services* as the leader and decision maker of the state's public health and health care-related response to pandemic influenza.

2. The Commissioner designates the *State Epidemiologist* as the leader in preparing and maintaining the state's influenza pandemic plan.

3. The Commissioner designates the *Director, Office of Communications* to clear all communications about influenza with the press and via the Department's web site, in keeping with the existing routine chain of command policy on communications.

4. In the event of a pandemic alert, the Commissioner convenes the *Influenza Pandemic Executive Response Team*. The Executive Response Team is responsible for developing/approving all major Departmental policy decisions (including priority groups to receive vaccines in the event of vaccine shortages), ensuring coordination among all affected units throughout the Department, maintaining and updating lists of key partners, and mobilization of additional resources (funds and staff) as needed. A Departmental Organizational Chart is in Appendix 3.

    - The Executive Response Team includes the Chief of Staff, the State Epidemiologist, the two Senior Assistant Commissioners and two Deputy Commissioners who oversee the four

major organizational units in the Department, the Director of the Office of Communications, the Service and Medical Director of the Communicable Disease Service, the Chief and Medical Consultant of the Vaccine Preventable Diseases (VPD) Program, the Director of the Office of Emergency Medical Services (EMS), the Acting Director of the Division of Local Health and Emergency Response , and the Assistant Commissioner of the Public Health and Environmental Laboratories (PHEL).

- An Administrative Coordinator is appointed to ensure coordination of activities and information, and to staff all Departmental organizational responses throughout the phases of the pandemic.

5. In the event of a pandemic alert, the State Epidemiologist convenes and chairs a *Pandemic Operations Center*, which is responsible for conducting the major activities of the Department in surveillance (including laboratory activities), vaccine distribution, and development of scientifically sound informational materials for health professionals and the public.

   - The Pandemic Operations Center includes the Chief and the Medical Director of the VPD Program; the Medical Director and Service Director, Communicable Diseases; the influenza surveillance coordinator; the Program Manager, Infectious and Zoonotic Diseases (IZD) Program; the Director, Public Health Laboratory Services; the Department's Emergency Response Coordinator; the Medical Consultant, Senior Services; a representative from EMS; a representative from the Office of Communications; and a representative from the Division of Local Health and Emergency Response.

   - Representatives from other Departmental units are called in as needed (e.g., Hospital Licensing, Public Employee Occupational Safety and Health, Long Term Care).

   - The Pandemic Operations Center reports to the Executive Response Team.

6. The Pandemic Operations Center is advised by an *Influenza Pandemic Health and Medical Advisory Team* of external stakeholders that is appointed and convened by the Commissioner. The Team is chaired by the State Epidemiologist and includes representatives from key health-related organizations including the hospital associations, the Association of Practitioners of Infection Control, the Medical Society of New Jersey, New Jersey Chapter of the Infectious Disease Society, the Association of Health Plans, the Association of Pharmacists, the State Medical Examiner,

the state nurses association, the two associations of long term care providers, the three organizations representing local health departments/officers, a representative from the NJ Local Boards of Health Association, representatives from the pharmaceutical industry, and others as appropriate.

7. In the event of an imminent pandemic, the Governor, on advice from the Commissioner and the *Deputy State Director, Office of Emergency Management*, activates the New Jersey Emergency Operations Plan (EOP) under the auspices of the State *Emergency Operations Center (EOC)*. The Deputy State Director determines State Emergency Operating Center activation, the notifications to be implemented and the level of EOC staffing. The Deputy State Director (or alternate) notifies the Governor's representative and the Attorney General's on-call Deputy of the emergency event. The State Office of Emergency Management notifies the appropriate Emergency Coordinators (or alternate) of the supporting agencies by telephone call. The Emergency Coordinators then notify the appropriate personnel within their agencies. The DHSS reports to the EOC through its chain of command: Pandemic Operations Center to Pandemic Executive Response Team to Commissioner or his/her designee, under advisement from the Health and Medical Advisory Team. The Commissioner or his/her designee serves as a single point of contact for the DHSS.

C. Local

The 115 LHDs are responsible for developing pandemic influenza planning documents to complement the state planning document. Guidance for developing the plans is included throughout this document. In summary each LHD is responsible for the following within its jurisdiction:

- Defining command and control;
- Ensuring that the local Emergency Management Plan includes influenza pandemic related materials;
- Assessing health and related resources and deficiencies (e.g., numbers of hospital beds, potential non-hospital alternate medical care facilities, physicians, nurses);
- Identifying appropriate public facilities to serve as mass vaccination sites/ alternative treatment centers;
- Maintaining and updating lists of key partners;

- Developing a comprehensive communications plan, including utilization of the LINCS system and the Health Alert Network;

- Supporting the state surveillance initiative at the local level;

- Assisting in the transport of clinical specimens to the state laboratory;

- Promoting inter-pandemic routine influenza and pneumococcal vaccinations to designated high-risk groups;

- Coordination of care for individuals confined to their homes.

D. Private Sector

Influenza prophylaxis and treatment during a pandemic will predominantly be the responsibility of those individuals and organizations in the private sector. Voluntary compliance with guidelines and directives from governmental agencies is needed, particularly in the following areas:

- Distributing and administering vaccines and antiviral agents according to policies and priorities set by the state;
- Cooperating with local public health officials in developing and updating local and county emergency response plans;
- Committing to ongoing review and updating of institutional emergency plans (hospitals, and long term care facilities) to ensure that they adequately address an influenza pandemic event.

III. Concept of operation

A. Pre- pandemic stage *(No novel or new influenza virus has been detected anywhere in the world)*

1. Surveillance

Influenza surveillance is designed to determine when influenza viruses are circulating, identify circulating strains, detect changes in the viruses, monitor influenza-related illness, and measure the impact of influenza on deaths. Both disease surveillance and virologic surveillance are critical for pandemic preparedness.

a. Current system:

1) Federal: The Influenza Branch, CDC, conducts surveillance for influenza in the United States each year from October through mid-May

The four components of the national influenza surveillance system are:

World Health Organization Collaborating Laboratory System. Approximately 75 World Health Organization collaborating virology laboratories and approximately 50 laboratories from the National Respiratory and Enteric Virus Surveillance System located throughout the United States report the total number of respiratory specimens tested and the number positive for influenza by type and subtype each week. A subset of the influenza viruses isolated is sent to CDC for antigenic characterization.

122 Cities Mortality Reporting System. Each week, the vital statistics offices of 122 cities report the total number of death certificates filed and the number of those for which pneumonia was identified as the underlying cause of death or for which influenza was mentioned in any position. New Jersey cities participating in this system are: Camden, Elizabeth, Jersey City, Newark, Paterson, and Trenton.

State and Territorial Epidemiologists Reports. State health departments report the estimated level of influenza activity in their state each week. When activity occurs, it is reported as sporadic, regional, or widespread which are defined as follows:

Sporadic - Influenza cases, either laboratory-confirmed or influenza-like illness (ILI), are reported, but reports of outbreaks in places such as schools, nursing homes, and other institutional settings have not been received.

Regional - Outbreaks of either laboratory-confirmed influenza or ILI are occurring in geographic areas containing less than 50 percent of the state's population. A geographic area could be a city, county, or district.

Widespread - Outbreaks of either laboratory-confirmed influenza or ILI are occurring in geographic areas representing more than 50 percent of the state's population.

U.S. Influenza Sentinel Physicians Surveillance Network. Approximately 260 physicians around the country report each week the total number of patients seen and the number of those patients with ILI by age group. Approximately 70 New Jersey physicians currently participate in this system.

2) New Jersey

Disease-based Reporting (Passive surveillance)

Until the winter of 2000/2001, the DHSS had relied only on a passive, voluntary reporting system for surveillance of influenza, as follows: In late summer of every year, the DHSS, in cooperation with the Department of Education, mails information to all schools in New Jersey requesting them to report absenteeism due to ILI in the coming year. This information is to be reported directly to the Infectious and Zoonotic Diseases (IZD) Program at the DHSS. A report is to be submitted whenever the absenteeism rate is equal to or greater than 15 percent of the school's student body. This information is used to estimate ILI in the state using the system described above under State and Territorial Epidemiologists Reports. This information is reported weekly to the CDC.

Similarly, in late summer of every year, the IZD Program, DHSS, in cooperation with the DHSS' Division of Health Care Planning and Regulation, mails information to all Nursing Homes requesting them to report all outbreaks of ILI to the IZD Program. As with the school based system, this information is used to estimate ILI in the state using the system described above under State and Territorial Epidemiologists Reports.

The DHSS has enhanced this passive system with an active system for selected schools, nursing homes, and hospital emergency departments in the winter of 2000/2001. Selected Local Health Departments ("LINCS" sites) are coordinating this effort. The IZD Program, in collaboration with all LINCS sites has implemented a protocol for weekly reporting from a sample of schools and nursing homes, and all hospital emergency departments. In this active system, the schools, nursing homes, and hospital emergency departments are being asked to report weekly rates of absenteeism (schools) or ILI. Weekly rates are made available on the DHSS' web site. Selected Emergency Departments are continuing to report year round.

Laboratory-based Reporting

There are three laboratories in New Jersey that do viral isolations, the Public Health and Environmental Laboratories (PHEL) at the DHSS, Hackensack University Medical Center, and UMDNJ-Robert Wood Johnson University Hospital. Each of these laboratories reports its findings voluntarily to the IZD Program. The IZD Program reminds them to report at the beginning of each flu season. Although these laboratories are geographically well distributed, the territory covered by this surveillance is quite limited. Neither Hackensack nor UMDNJ performs any community-based surveillance. Cultures performed are those ordered by physicians on in-patients. The PHEL performs all cultures sent to it; however those are few in number, primarily those ordered and/or collected by the IZD Program in response to reported outbreaks of ILI. Only Hackensack

University Medical Center and the PHEL currently have the ability to do strain typing which is essential to determine if a novel virus is circulating. Commercial laboratories, such as Quest and LabCorp, do very little influenza testing and that which is done, is primarily the rapid test and not viral culture.

b. Plan of operations

1) Current surveillance activities as described above will continue. The IZD Program at the DHSS will coordinate statewide surveillance activities.

2) Several improvements are being developed in the protocol for routine influenza surveillance as a result of funding from the CDC in April 2001. The CDC is providing funds for the DHSS to become involved with and to enhance its program of sentinel reporting physicians. In the past, several physicians reported numbers of patients with ILI directly to CDC. Under this grant, the DHSS has recruited approximately 70 physicians to report and will provide on-going oversight and support so that there is consistency and completeness of reporting. Additionally, these physicians will be requested to collect specimens from some of their patients for laboratory analysis, and funding is provided for laboratory analysis of these specimens. A full time influenza coordinator will be hired to coordinate influenza activities.

3) A plan for improving the usefulness of laboratory based surveillance is being developed. The laboratory-based system has no community base for surveillance. There is no organization in place to collect community specimens from individuals with ILI and get them to the nearest laboratory for testing. In the past, specimen containers had been distributed to LHDs, but these received little use, primarily because there was no system to get them back to the laboratory in a timely manner, and the practice was discontinued. Viral isolation is performed at Hackensack only when requested by the patient's physician. Robert Wood Johnson University Hospital operates in a similar fashion. The PHEL receives specimens only when the IZD Program is notified of an influenza-like outbreak, and makes arrangements for specimens to be sent to the laboratory. Resources need to be identified to obtain more appropriate surveillance cultures and quickly transport them to a laboratory. Resources also need to be identified to ensure that laboratories have the funding, reagents, staffing and training necessary to perform the testing.

4) An electronic disease reporting system is under development that, when completed, will allow for rapid reporting of ILI to the DHSS and to local health departments, should more extensive reporting become necessary. This system will allow for web-based reporting by laboratories, health care providers, and health-related institutions. It will have multiple levels

of security and messaging systems to alert appropriate health officials in case of emergency.

2. Vaccine delivery

a. Current system

National

The World Health Organization (WHO) collaborating influenza centers detect and monitor new variants of influenza virus throughout the year for potential inclusion in the next year's vaccine; vaccine strains are ultimately chosen by early Spring; the three licensed U.S. vaccine manufacturers produce approximately 75-95 million doses over the summer months so that the vaccine can be available in the fall. The vaccine is administered, primarily to "high risk" patients (as currently defined by the Advisory Committee on Immunization Practices [ACIP]), mostly from October through January.

New Jersey

Overview:

The current influenza vaccine delivery system in New Jersey is primarily, although not entirely, a private sector-based purchase, delivery and administration system.

The relatively small amount of vaccine that is purchased by the public sector, is purchased by LHDs and administered in their clinics, mainly in special clinics organized specifically to give vaccine in their communities in the fall and early winter of each year. The involvement of the DHSS is limited to administration of influenza vaccine for at-risk children under its Vaccines For Children (VFC) Program, and for ensuring that the state negotiates a contract with the vaccine manufacturers so that all LHDs can purchase vaccine at a reduced cost.

Vaccine purchase, storage and delivery:

In New Jersey, as in other states, influenza vaccine is purchased both by publicly funded agencies and the private sector. The vaccine supply is ordered directly from vaccine manufacturers to the end customer or from a wholesaler.

In the public sector, LHDs purchase vaccine directly from the manufacturers or through the state-negotiated contract with the manufacturers, using local funds. The advantages to LHDs for using the state contract are lower cost and simplicity in ordering (i.e., the LHD does not have to go through a bidding process each year.) The state contract stipulates that the LHDs must place their orders by May 15 of each year.

Orders received after that date may not be filled, depending on supply and demand. Virtually all 115 LHDs purchase influenza vaccine through this mechanism each year. Under the state contract, influenza vaccine costs approximately $5.70 per dose, and pneumoccocal vaccine costs $9.60 per dose.

The DHSS provides influenza vaccine only to high-risk children through age 18 who are enrolled in the VFC Program. Influenza vaccine, like all other vaccines in this program, are purchased by the Federal government and distributed by the DHSS using contracted vendors for ordering, storage, and distribution. Vaccine ordering, storage, and distribution functions at the DHSS warehouse facility ceased with the advent of the New Jersey VFC Program in January 1999 and the designation of two out-of-state contractors to fill the vaccine ordering/accountability and vaccine storage/distribution functions, from Pittsburgh, Pennsylvania and Long Island, New York, respectively.

Federal funds to the DHSS for immunization are used to pay for all aspects of the VFC Program other than vaccine.

Most doses of vaccine are delivered by the private sector. Vaccine purchases are handled entirely by the providers/agencies directly with the manufacturer or through a wholesale agent, with no involvement from the DHSS.

Currently, most individuals who receive the vaccine are age 65 or older and therefore are covered by Medicare. **In 2002, Medicare is paying New Jersey providers an average administration fee of $4.48 and a vaccine fee of $8.02 for influenza vaccine.** Medicare recipients who are enrolled in a managed care plan are covered by Medicare's contract with those plans. Medicare will reimburse LHDs for those individuals who are enrolled in fee for service plans, but generally not those who are enrolled in a managed care plan, because those individuals should be obtaining the vaccine from their primary care providers. Likewise, Medicare reimburses for pneumococcal vaccine.

Vaccine storage and delivery in the private sector and in LHDs is handled without involvement of federal, state, or local agencies, except for VFC.

Number of doses administered:

The total number of influenza doses annually purchased and administered to persons of all ages each influenza season in New Jersey is unknown due to lack of data from the private sector. This information is considered proprietary by the vaccine manufacturers, and private physicians do not have to report doses administered.

Data on publicly administered doses and some estimates of privately administered doses are available. In New Jersey, approximately 175,000 doses of influenza vaccine are administered annually by the 115 local health departments. LHDs administer approximately 21 percent of the influenza vaccines that are administered to Medicare recipients. The VFC Program provides approximately 10,000 - 15,000 doses of influenza vaccine to high-risk children annually.

Medicare Claims data from New Jersey indicate that of the Medicare beneficiaries age 65 or older in 2000, only 33.6 percent Medicare patients received influenza vaccine doses in 2000. Self-reported data on influenza vaccination from the "Behavioral Risk Factor Surveillance System" (BRFSS) annual telephone survey in 2000 found that 65.7 percent, of persons 65 years of age or older received influenza vaccine and a pneumococcal coverage rate of 56.8 percent . The difference between the data from these two sources may be due to improved coverage over the three years, because Medicare claims data do not include data on capitated patients, or because some patients may receive vaccine outside of their usual medical providers.

Pneumococcal vaccine is an important part of preventing and reducing morbidity from influenza. In New Jersey, approximately 14,000 doses of pneumococcal vaccine is administered annually by LHDs. In the past four years LHDs have begun to offer pneumococcal vaccine at their annual influenza mass clinics.

Promotion of influenza and pneumococcal vaccine:

Individuals at highest risk of morbidity/mortality from influenza are the frail/sick elderly, and those in long term care facilities and in hospitals. Regulations have gone into effect recently that require hospitals and long term care facilities to offer influenza and pneumococcal vaccine to all at-risk patients. These institutions purchase vaccine independently and have been encouraged and trained to bill Medicare for reimbursement to cover the cost of vaccine and its administration. The effectiveness of these programs is currently under evaluation.

The DHSS conducts a variety of media activities each fall to promote influenza and pneumococcal vaccination in "high risk" groups.

b. Plan of operation

The goals for vaccine delivery in the pre-pandemic period include: (1) enhancing influenza and pneumococcal vaccine coverage in high risk groups, and (2) establishing procedures that can quickly be activated during a pandemic that will address: priority groups for vaccine in the face

of vaccine shortages, vaccine storage, vaccine distribution locally, and protocols that address legal issues. This plan recognizes that there are several issues regarding vaccine delivery that must be addressed by the federal government. The completeness and effectiveness of state and local plans will be somewhat dependent on the resolution of issues at the federal level. Appendix 4 lists these federal issues.

1) Enhancement of vaccine coverage : During the pre-pandemic period, the DHSS, LHDs, and their partners will encourage the annual influenza vaccination of all persons who are deemed high risk including those 50 years of age or older and other persons of any age with chronic conditions placing them at high risk. In addition, adults 65 years of age or older and those with certain chronic conditions will be encouraged to get at least one dose of pneumococcal vaccine to prevent the severe complications following influenza. Pneumococcal vaccination provides protection from pneumonia, to which individuals with influenza are particularly susceptible.

   The DHSS will monitor and enforce regulations requiring hospitals and long term care facilities to screen and offer influenza and pneumococcal vaccines to at risk patients.

   Private physicians and their professional organizations will be reminded annually through direct mailings from the DHSS, through meetings and workshops, the Medicare Program communications, Peer Review Organization of New Jersey communications, and other means about the need to vaccinate at risk older adults with influenza and pneumococcal vaccines.

2) Establishment of procedures for vaccine delivery during a pandemic:

- Vaccine Recipient Priority List: Priority groups to receive publicly purchased/provided vaccine must be established, assuming that vaccine shortages are very likely and delivery systems will not be able to vaccinate the entire population. The DHSS will review recommendations on immunization prioritization issued by the CDC. Health care and essential service workers are likely to be foremost on the priority list. The Pandemic Influenza Advisory Team will make recommendations to the Commissioner at the time of a pandemic alert, when epidemiologic data about the pandemic virus and vaccine supplies become available. The Governor has final authority to certify a priority list.

- Vaccine storage: The federal government has not yet determined the structure of a pandemic vaccine distribution system. One possibility is that the federal government will purchase and distribute most, if not all, and expect state governments to handle storage and distribution. Another possibility is that, the federal government may allocate vaccine, but expect states to pay for most, if not all of their vaccine.

  The DHSS has available four large stand-alone refrigerators with a total capacity of 200 cubic feet of storage space for biologic products, which will accommodate approximately 500,000 doses of vaccine. The DHSS will assess excess capacity, including this space and storage facilities of its VFC contractor. LHDs should evaluate capacity locally for secure storage. In the event that existing contractual language and consequent operations cannot be modified in the event of an emergency, the DHSS may have to:

  -redirect existing staff or hire additional warehouse and other staff,
  -seek an additional secure state storage facility,
  -secure a rented refrigerator tractor-trailer truck at a cost of approximately $1,000/month,
  -develop or re-institute the old manual ordering system,
  -seek a contracted private courier service to deliver ordered vaccines.

- Vaccine administration

  The private sector will have a vital role in vaccinating the public. The DHSS has conducted outreach to hospitals, managed care organizations, and health care professional associations to elicit a written commitment for cooperation, including adherence to state and federal guidelines for priority groups to receive vaccine during a pandemic and coordination with local public health officials in developing local emergency response plans.

  LHDs will be responsible for administration or re-distribution of publicly purchased vaccine following policies and procedures established by the DHSS. They will ensure that mechanisms are in place to purchase safety engineered syringes, alcohol wipes, and sharps containers in advance using local funds, unless federal funds become available. Administration of vaccine to the general population will most likely take place at large vaccination “clinics”. LHDs must evaluate existing emergency response plans and supplement them as needed to ensure that lists of appropriate sites, properly licensed professionals who can be called on to staff the clinics, and partner organizations (e.g., voluntary organizations, health care facilities) are up-to date. (see Section V.)

The vaccine delivery process may become significantly more simple should federal Food and Drug Administration (FDA) approve the nasal spray devices for dispensing vaccine that are under development. This technological innovation will require different policies and procedures than those currently used for needles and syringes.

- The DHSS, VPD Program, has updated its "Mass Immunization Guide" and will be printing and distributing it as appropriate. This manual is a standard reference for:
  - Vaccine ordering forms
  - Accountability forms
  - VAERS protocols
  - Vaccine handling/storage/administration techniques
  - Vaccine security
  - Clinic session summary log
  - Vaccine Information Statements (VISs)
  - Record retention schedule
  - Fact sheets on influenza and pneumococcal disease
  - List of priority groups in the event of vaccine shortages.
  - Prototype standing orders
  - Medicare roster billing log

3) Legal authorities:

NJDHSS and NJ Department of Law and Public Safety have jointly reviewed the existing legal authority for entering upon those steps anticipated to be necessary to contain and control a pandemic situation. It is further recognized that any such response must be a balance of both respect for individual rights and the need to ensure the public's protection from a communicable illness associated with substantial morbidity and mortality. Two pre-eminent legal structures have been identified as fundamental to enabling a rapid and effective response to any such threat to the public's heath.

1. Powers presently possessed by the NJDHSS and local boards of health by statute

2. The NJ Domestic Security Preparedness Act

Specifically, DHSS and local boards of health shall have the power to:

a) define a communicable disease,
b) declare an epidemic,
c) require the reporting of communicable diseases,
d) isolate and quarantine infected persons,

e) remove infected persons to a suitable place,
f) disinfect premises, and
g) remove and destroy property.

Additionally, if current statutory provisions are insufficient in a particular emergency situation, the State has the authority to act on behalf of the public good.

The Commissioner of the DHSS currently possesses the regulatory authority to mandate vaccines and doses above those currently required for children or pupils enrolled in licensed child care centers, schools, and colleges (N.J.A.C. 8:57-4). The Immunization Insurance Law for children also contains an emergency clause, which permits the Commissioner to mandate that large group health insurers cover an ACIP recommended vaccine for children. The Hospital Employee Immunization Regulations do not currently contain an emergency clause to mandate that hospital employees and staff be vaccinated with other vaccines beyond the required measles and rubella. However, the declaration of a state of public emergency and subsequent actions and operations as outlined by the State Emergency Operations Plan and its protocols may offer broad based powers to the Governor and Commissioner of the DHSS to appropriate money, expedite contracts, hire temporary personnel, issue additional mandates, or to otherwise act to protect the public's health.

Thus, it is believed that NJ statutes combined with implementing regulations and case law provide the necessary procedural safeguards which achieve a balance between public and private interests.

With specific reference to some of the most important and sensitive activities necessary for an effective response to a novel influenza virus outbreak or pandemic:

- It is believed that there is sufficient legal authority for the implementation of vaccination, isolation and quarantine programs. This includes the legal authority to establish "suitable places" for isolation and quarantine and the mandating of immunization, quarantine, or isolation.

- The potential emergency need for additional personnel to administer vaccinations and what qualifications would be necessary. Presently, physicians, nurses and nurse practitioners are so authorized in accordance with their respective state professional boards. Additionally, physician's assistants may do so as well under protocols established with a supervisory physician. Medical assistants and personal care assistants may administer vaccinations under the supervision of a registered nurse. Certain military personnel may have training as well to administer vaccinations.

Additionally, during the prepandemic period, the DHSS will continue to work to determine the existence of regulatory authority or other means to answer whether the following legal or legislative questions related to actions, which may be necessary before and during a pandemic:

- Upon a state-of-emergency declaration: What is the extent of powers available to the Governor and Health Commissioner to control a pandemic?

- Can health insurers be required to cover influenza immunizations to all age groups?

- Does a mechanism exist to secure emergency appropriations from legislature?

- Can hospital employees/staff be mandated to receive influenza vaccination under existing or modified rules?

- Can volunteers and other staff administering vaccine or supporting the effort be indemnified by the State?

- Can the Commissioner relax rules pertaining to use of safety syringes and site licensure /syringe medical waste disposal?

- Can the Board of Medical Examiners or the Board of Nursing relax standards/rules pertaining to who can administer influenza vaccine?

- Can the Legislature/ Department establish a contingency vaccine emergency fund?

- Can the New Jersey National Guard be directly involved in the transportation of vaccine and administering vaccine?

3. Antiviral Agents

a. Current system

The antiviral agents amantadine and rimantadine interfere with the replication of type A influenza virus and are 70 to 90 percent effective in preventing illness caused by a wide variety of naturally occurring strains in both children and adults. To be maximally effective as prophylaxis, the drug must be taken each day for the duration of influenza activity in the community. Amantadine and rimantadine can also reduce the severity and duration of signs and symptoms of influenza A illness when administered to healthy adults within 48 hours of illness onset. Their effectiveness

among persons at high risk or children has not been established. They may cause central nervous system and gastrointestinal side effects in some persons.

There is a second generation of antiviral influenza drugs; zanamivir and oseltamivir phosphate (OP). Zanamivir, which is inhaled, has been approved by the FDA for persons aged 13 and older for treatment and prevention of both type A and B influenza. It has not been approved by the FDA for prophylaxis, although studies indicate that it works in that setting. The FDA has issued a warning that zanamivir should not be given to patients with asthma and chronic obstructive lung disease because it might induce an asthma attack that could be fatal. OP is an oral agent that has the same applications as zanamivir and is now approved for treatment for persons above one year of age. It is also approved for prophylaxis for adults and adolescents 13 years and older.

Currently, the manufacture, purchase, distribution, and prescribing of these drugs is entirely in the private sector. Pharmaceutical companies manufacture antiviral drugs based on projected influenza activity for the coming influenza season. They deliver their products to wholesale distributors, who deliver the drugs to pharmacies and hospitals. (Wholesalers handle 78 percent of all drugs; chain drug stores handle 60 percent of their drugs through their own chain drug distribution centers). Local pharmacies usually only maintain a seven day supply of any drug.

b. Plan of operations

1) The current system is adequate to meet the needs of the normal influenza season.

2) Because of their purported efficacy, these drugs could be expected to play an important role in the prevention and treatment of pandemic influenza. However, their supply is expected to be extremely limited and there are some significant concerns about adverse reactions and related liability that may limit their usefulness during a pandemic. Their effectiveness against a novel influenza virus also is unknown. Widespread use of antiviral agents could lead to emergence of drug resistant viral strains.

For these reasons, the DHSS and other public agencies do not expect to play a major role in the distribution and allocation of antiviral agents as part of the response to an influenza pandemic. During the pre-pandemic phase the responsibility of the DHSS will be limited to ensuring that the DHSS is current with clinical information on these drugs, so that, in partnership with medical organizations and pharmaceutical manufacturers, the DHSS can quickly notify the

medical community and the public of appropriate prescribing information in the event of sudden increased demand. The DHSS will obtain or develop fact sheets on these drugs, similar to fact sheets currently in use for vaccines.

4. Communications

a. Current system for communicating public health issues

1) Federal: The CDC has primary responsibility for communicating public health issues to other federal agencies, state agencies and the public. Its partner, the Council of State and Territorial Epidemiologists, also participates, in particular, in disseminating information to all State Epidemiologists. Currently, routine communications are provided through press releases, publication in MMWR, and on the CDC web site. Emergency issues involving states make heavy use of conference calls, fax, and e-mail. CDC has developed a "secure" web site, with limited access regarding West Nile virus, and it has established a secure e-mail/notification system for public health officials, called "Epi-X".

2) New Jersey:

Like CDC, the DHSS relies on the press and its web site for routine dissemination of public information. The Office of Communications, within the Office of the Commissioner, has lead responsibility for developing and approving material for the press and the public. The Office sponsors a variety of programs every fall to promote influenza and pneumococcal vaccines, including press releases, "events" with presentations by the Commissioner, and others.

New Jersey's recent experience with bioterrorism highlighted the necessity of rapid and accurate dissemination of information to both the Department's professional partners and the public. The Department's website will be emphasized as a coordinating resource for timely communication of vital information to healthcare providers, emergency responders and public health professionals as well as for status updates of benefit to the general public.

The DHSS has the capacity to fax emergency messages to hospitals, nursing homes, local health departments, and others. All 114 LHDs can be contacted by fax, e-mail and have access to the Internet.

Additionally, the DHSS has been building a public health electronic communication system, starting with 22 lead public health agencies (LINCS – "Local Information Network and Communications System") which include health departments in all counties and the local health departments in Newark and Paterson, and including almost all of the state's 114 LHDs. LHDs in the LINCS system have been encouraged to build electronic communications networks with all local health departments, the medical community, emergency responders, and other related organizations in their communities (CHAIN – "Community Health Alert and Information Networks"). To date over 15,000 organizations are part of their CHAINs. Hardware, software, and help desk support are provided with funding from the DHSS to the New Jersey Institute of Technology. (NJIT).

The LINCS system is undergoing major expansion with funding from the CDC to develop a "Health Alert Network" (HAN) under its bioterrorism initiative. Expansion of this system (hardware, software, numbers of users, security provisions) will result in a system that provides a graduated response utilizing alerting messages via alpha-numeric pagers, list serving e-mail, secure web pages and synthesized telephonic voice as appropriate for the situation. Sophisticated software ("The Communicator"; Dialogic Communications Corporation) has been purchased, which is designed to function as a reverse 911 system for notifications. It should be operational later in 2002.

Additionally, in order to optimize the allocation of patient care resources, the NJDHSS, Office of Emergency Medical Services is anticipating implementing a web-based diversion software program in 2003. Specifically, this would create a "real time" mechanism for:

- Continuously monitoring (both vertically and horizontally) statewide hospital diversion status;

- Central dispatch centers to coordinate direction to patient care sites;

- Continuously monitoring hospital bed availability.

b. Plan of operation

1) The DHSS Office of Communications will continue to support statewide efforts to improve influenza and pneumococcal vaccination rates, particularly among New Jersey's 1.4 million

seniors, through coordination of media events and the issuance of press releases and fact sheets.

2) The DHSS will improve its capacity for emergency contact with medical and public health organizations by developing a system to ensure that contact files maintained by the Programs are coordinated and current. Organizations that are included in these files are listed in Appendix 5. The DHSS has contracted with the Office of Information Technology to prepare a centralized, multi-tiered mailing list; once this is operational, the Office of Communications' list will be incorporated into this system.

3) Prototype communications materials will be prepared which will be available prior to the next pandemic.

5. Emergency response

The pre-pandemic period is the critical period for estimating the impact of a pandemic on health care resources, identifying resources available during a pandemic, and for conducting exercises to ensure readiness.

a. Estimate of need for health care services: Although there is great uncertainty associated with any estimate of an influenza pandemic's impact, the DHSS has used CDC software (" *FluAid*.") to make estimates of the impact of an influenza pandemic on New Jersey, including deaths, hospitalizations, and outpatient visits by age groups, and their impact on state resources (e.g., hospital beds, morgue facilities, number of vaccine doses needed.). The tables in Appendix 6 were generated using this software. LHDs are encouraged to use this software tool to make estimates for the areas under their jurisdiction.

b. Evaluate existing health care and essential community services infrastructure:

Local health departments are responsible for assessing and updating the numbers, names, and/or locations of the following

Healthcare personnel:

Physicians: Primary Care, Intensive Care, Emergency Department, Infectious Disease;
Physician Assistants;
Registered Nurses; Advanced Practice Nurses, School Nurses, Public Health Nurses;
Infection Control Practitioners;

Non-licensed Hospital Personnel; Nurses Aides, Multi-Skilled Technicians;
Out-of-hospital personnel: paramedics, EMTs, First Responders.

Health/medical equipment and supplies:
Personal Protective Equipment including: Gloves, Masks/Eye Protection, Gowns;
Ventilator availability and accessibility;
Influenza vaccine availability and accessibility;
Antiviral agent availability and accessibility;
Pneumococcal vaccine availability and accessibility;
Needles and syringes for administration of antiviral, influenza, and pneumococcal vaccines; and antibiotic administration;
Needle boxes and swabs;
Intravenous supplies including intravenous fluid, catheters, IV tubing and securing devices;
Antibiotics.

Patient evacuation (All EMS transport assets would be coordinated by County OEM-EMS Coordinators):
Utilization of the New Jersey State First Aid Council and other non-affiliated volunteer squads;
Utilization of the Medical Transportation Association of New Jersey and affiliates;
Utilization of Advanced Life Support System.

In-hospital care:
Availability of critical care beds
Availability of non-critical care beds
Availability of essential and non-essential care personnel
Availability of Emergency Department beds and ability to expand bed capacity.
Availability of hospital equipment, advanced life support measures**.**

Set up of Non-traditional Care Centers (*Emergency Treatment Centers*):
Availability of office buildings;
Availability of school buildings;
Availability and resources of medical personnel to staff centers
Availability of medical supplies, and other resources.

Mental Health:
Available services to provide treatment, social counseling.

Victim identification/mortuary services.

Voluntary organizations who can assist in care of the sick, provision of food and other essential support for homebound persons, transportation, child care, etc.

Essential community (non-medical) service providers (heat, electricity, police, fire, government institutions such as jails).

c. The DHSS will survey all hospitals to determine if their disaster plans are in place and effective for an influenza pandemic. This will be done in conjunction with the state's bioterrorism initiative. If needed, recommendations for changes in the plans will be made, collaboratively with the three hospital associations. In addition, there is a need for an agreed-upon set of criteria for who should and should not be admitted to the hospital in a pandemic situation. The DHSS will work with clinicians to develop, test, and promote this document.

d. Tabletop exercises will be conducted at the state level, and LINCS sites will be encouraged to organize tabletop exercises regionally and locally.

e. The DHSS Emergency Response Coordinator is responsible for informing the State Epidemiologist of any changes in State emergency response protocols, which would impact on emergency response to an influenza pandemic.

B. Novel virus alert stage *(A novel virus has been detected somewhere in the world)*

1. Surveillance

a. The IZD Program will monitor daily reports from CDC on the alert and share information as appropriate with LHDs and the health care communities.

b. The passive and active surveillance systems will be operational during the normal influenza season.

c. If the novel virus alert occurs outside of the normal flu season, activation of the enhanced, active surveillance system will be considered, depending on the scope and nature of the novel virus alert.

d. Depending on the scope and nature of the alert, targeted surveillance will be considered, including surveillance of international travelers or travelers to the part of the world where the novel virus was discovered, enhanced surveillance of specific age groups, and recruitment of additional sentinel physician reporters.

e. The three laboratories will continue to report results of influenza tests to the IZD Program.

f. The DHSS PHEL will obtain appropriate reagents from CDC to detect and identify the novel strain.

g. Results of influenza surveillance will be transmitted electronically to CDC at least weekly.

2. Vaccine delivery

a. The VPD Program will ensure that the federal government provides operational guidance on as many issues as possible including the development of a vaccine recipient priority list (see Appendix 4).

b. The VPD Program, in conjunction with CDC and the vaccine manufacturers, will estimate the likely shipment delays and shortages of influenza vaccine.

c. The VPD Program will review its manual of standard procedures and update it as needed, including procedures to handle/triage vaccine delivery based on projected vaccine supply and procedures to ensure that scarce vaccine is first shipped to highest priority agencies or institutions.

d. The VPD Program will meet with the Influenza Pandemic Health and Medical Advisory Team to review the manual and other issues (e.g. storage capacity, personnel resources, security arrangements, sites for mass vaccination clinics.)

3. Antiviral Agents

a. Same plan of operation, as during the pre-pandemic period**.**

4. Communications

a. The Commissioner will convene the Influenza Pandemic Health and Medical Advisory Team within two weeks of the novel virus alert. The Team will review current protocols, priority lists, and recommend changes based on the characteristics of the novel virus and information from the CDC.

b. If the novel virus alert occurs during the preceding season, the DHSS will expand its outreach to the public and the medical community to increase levels of influenza and pneumococcal vaccination among high risk groups, as recommended during pre-pandemic times.

c. The DHSS will notify the health care and public health communities of the novel virus alert.

d. The DHSS Office of Communications ("Office"), in coordination with the CDC and other pertinent agencies (e.g., National Institutes of Health), will issue cautionary announcements and share relevant information. Such information shall include, but not be limited to, what is known about the virus, how the Department is monitoring influenza activity, and what steps are being or will be taken by local, state and federal authorities to prevent or slow the spread of the virus and minimize its impact.

e. The Distance Learning project within the Office will be utilized to conduct training of health care and public health personnel who would be involved in a pandemic if it occurs.

f. The DHSS will use its communication protocols in this stage as a test of its existing systems and make whatever changes/improvements are necessary to facilitate effective and efficient communications at this and any subsequent stages.

5. Emergency Response

a. The DHSS and county/local health departments will review and update lists and protocols assembled earlier to ensure accuracy.

b. The DHSS and LINCS coordinators will meet with State and County emergency response coordinators to educate and update them on impending issues should there be a pandemic.

C. Pandemic alert stage *(Novel virus demonstrates sustained person-to-person transmission and causes multiple cases in the same geographic area.)*

1. Surveillance

a. The DHSS will notify health care providers of recommendations to screen for influenza using available rapid-screen kits, and to culture appropriate patients. Health care providers will be urged to submit specimens especially on patients presenting with recent travel history to regions where the pandemic strain is circulating or with unusually severe symptoms. Local health departments will be set up with specimen

collection kits to distribute to providers. A system will be established for delivery of specimens to one of the three laboratories capable of doing viral isolation and/or strain identification.

b. The enhanced active surveillance system and reporting from the three laboratories will be fully operational.

c. The DHSS will meet with the New Jersey Association of Pharmacists and request that their member pharmacists report if they are filling unusually large numbers of prescriptions for antiviral agents.

d. The DHSS will monitor influenza deaths through the DHSS' Center for Health Statistics electronic death certificate system, which is operational in 10 hospitals now and is being expanded, and by requesting reporting of deaths due to influenza-like illness from the State Medical Examiner and county Medical Examiners.

e. The DHSS will monitor morbidity from data in the DHSS's new electronic hospital discharge system, which is expected to be accessible and timely. Under routine conditions, DHSS will not have the data until 5 days after the close of each month, although the hospitals will be required to report their data daily to the data intermediary. Rapid case identification from this system through daily reporting to the DHSS is thus possible; however there will be some costs associated with such a non-routine access to the data. The DHSS will use demographic and diagnostic information available in that data set to describe the epidemiology of the epidemic. The DHSS will establish written procedures for rapid access to the data, which can be activated when needed.

2. Vaccine delivery

a. The DHSS will ensure that LHDs have established contingency locations for vaccination clinics, identified appropriate existing or contracted staffing, prepared standing orders signed by each site's medical practitioner, and have all procedures in place in compliance with the state's Manual on Vaccine Delivery and requirements of CDC and the FDA.

b. The private sector will have a vital role in vaccinating the public. The DHSS will contact the individuals identified during the pre-pandemic period by outreach to the state's hospitals, managed care organizations, and health care provider organizations to ensure the continued commitment of the private sector to provide vaccinations and related support.

c. The DHSS will be responsible for delivery of vaccine, with the assistance of the New Jersey National Guard, if necessary. The LHDs will be responsible for printing forms (e.g. VISs) in sufficient quantities to meet their needs.

d. The DHSS will notify the health care community and LHDs if two doses of vaccine are necessary

e. The DHSS, in collaboration with CDC, will conduct training of appropriate staff on all aspects related to the vaccine administration process. This most likely will be done through the state's distance learning system (teleconferencing) and/or convening regional meetings.

f. The DHSS – VPD Program will establish a special database, use an existing database, or use the immunization registry to track vaccine distribution and administration in the public sector, in conjunction with CDC requirements. This system can also be used if at any time it is determined that tracking is necessary in the private sector. If feasible, this system will be entirely electronic, with data entry taking place at the local level and transmission occurring through the HAN or another existing network. The program will have the capability of generating reminder/recall for second dose administration, if necessary.

g. The list of priority groups to receive vaccine will be reviewed and approved by the Commissioner, and forwarded to the Governor for his/her approval.

3. Antiviral Agents

a. The DHSS will review current evaluations of the efficacy of antiviral agents and the available supply. If antiviral use is determined to be a feasible part of the pandemic strategy, priority groups will be identified for receipt of the drug, including prevention and treatment options. Priority groups will be recommended by the Commissioner, on advisement from the Influenza Pandemic Health and Medical Advisory Team, based on assumptions that antiviral medication shortages are likely and that delivery systems will not be able to cover the entire population. The current recommendations from the CDC are that health care workers and other essential community workers should receive priority in obtaining antiviral medications.

4. Communications

a. The Influenza Pandemic Executive Response Team will be convened and will address major policy issues, including the development of the list of priority groups and identification of emergency funding for related

activities. The Team will meet often enough to ensure timely decision-making and communications throughout the DHSS.

b. The Influenza Pandemic Health and Medical Advisory Team will continue to meet, review information on the emerging pandemic, and make recommendations to the Executive Response Team.

c. The DHSS Office of Communications, in conjunction with the VPD Program, will ensure distribution of informational materials (media kits, fact sheets, Q & As, video conferencing, etc.) produced by CDC and other pertinent agencies. Materials will be provided in other languages as feasible.

d. The Office of Communications will increase outreach to the public through the media and on the DHSS web site with educational materials on influenza and information about the epidemic, including surveillance efforts and findings, vaccine production efforts and delivery protocols, availability of antiviral agents, and where to obtain additional information.

e. All communication systems between the DHSS and partners will be tested. Deficiencies will be given priority for correction. These systems include phone, fax, paging, the Health Alert Network/LINCS, and the electronic surveillance system.

5. Emergency Response

a. Activities underway in the novel virus alert stage will continue.

D. Pandemic stage *(Novel virus causing unusually high rates of morbidity and/or mortality in multiple widespread geographic areas***)**

1. Surveillance

a. Enhanced active surveillance systems will continue.

b. Regular analysis of surveillance data will be performed by the IZD Program to provide information on the scope of the emerging pandemic and to identify high risk groups for targeting of education, vaccine delivery, and mobilization of health care and support personnel.

2. Vaccine delivery

a. Activation of the State Emergency Operations Center is likely to take place. Storage and distribution of vaccine is therefore likely to be a joint responsibility between the OEM and the DHSS, particularly if there are

major shortages of vaccine and major disruptions of the health care and emergency response systems due to widespread illness.

b. Depending on federal policy regarding purchase and distribution, the private sector may or may not be purchasing and administering vaccine independent from the public sector (state and local).

c. Based on vaccine availability, designated clinics and/or providers will begin administering state or federally purchased vaccine to high-risk groups in priority order. Mobile clinics may be used to ensure mass vaccination of the highest priority groups at their place of employment (first responders, health care workers, emergency workers).

d. LHDs will transmit weekly data on vaccine inventory and administration to the VPD Program, DHSS. The VPD Program will be responsible for determining if reallocation of vaccine among local health departments or to other entities is necessary.

e. If the federal government designates the state as having authority to distribute all vaccine in the state, then the DHSS will require the private sector to transmit data on vaccine inventory and administration.

f. Long term care facilities and hospitals will be advised by the DHSS to ensure that all high-risk residents or inpatients have been offered and encouraged to receive the pneumococcal vaccine, in compliance with state regulations that require this.

3. Antiviral Agents

a. The DHSS will review current evaluations of the efficacy of antiviral agents and the available supply. If antiviral use is determined to be a feasible part of the pandemic strategy, priority groups will be identified for receipt of the drug, including prevention and treatment options (e.g. health care workers, EMS, police and other emergency responders.)

b. Pharmacists will be asked to report on numbers of prescriptions being filled for antiviral agents and availability of the medications according to a system developed previously with the New Jersey Association of Pharmacists.

c. The pharmaceutical manufacturers will be asked to provide information about the current and future availability of antiviral agents.

d. The Influenza Pandemic Health and Medical Advisory Team will advise the Commissioner on the need for invoking the Commissioner's emergency powers to mandate rationing and/or penalties for non-

compliance with any DHSS influenza-related directives, based on the supply and demand for these medications.

4. Communications

a. In the event that the state Emergency Operations Center is activated, the Office will coordinate with the Governor's Office the establishment of a centralized communications command center (Joint Information Center) in keeping with the provisions of the New Jersey Emergency Operations Plan, Emergency Support Function #13, Public Information Annex. (Appendix 7)

b. The DHSS Office of Communications will provide information through the Joint Information Center, State EOC, with input from the DHSS Influenza Pandemic Executive Response Team.

c. The Office of Communications, through the Joint Information Center, will continue to distribute informational materials to the general public and health community via press releases, public health alerts, web site postings and other tools. Materials will be translated into Spanish and other languages, particularly if surveillance data indicate that certain ethnic groups appear to be at high risk.

d. The DHSS will work with the OEM to establish phone banks and staffing to answer calls from the public and the health care community.

e. All electronic messaging and communication systems available to the DHSS, including the Health Alert Network, will be used maximally to ensure that health care providers and local health departments have current information on surveillance, vaccine delivery, and all other related matters.

f. The DHSS will outreach to the Departments of Human Services, and Education to develop plans for handling counseling/psychiatric services, issues with children who may be orphaned by death of parents, and other social impacts of wide scale morbidity and morbidity.

5. Emergency Response

a. State and local officials will monitor the need to activate the emergency response system, but it can be expected that the OEM will be activated.

b. Resource requirements that need to be considered in depth at this stage include the following:

- Supplies & Equipment Requirements

Supplies and equipment to support the prehospital operations and non-traditional care center supplies should be obtained from local sources whenever possible. In large-scale incidents, supplies are made available through Federal agencies. (However, a widespread pandemic may limit the availability of such supplies.) Plans should be made regionally and locally to obtain equipment from suppliers during off hours in emergency situations. Hospitals may be able to provide limited quantities of supplies in emergency situations.

- Facility Requirements

Many hospitals and nursing homes in the State routinely operate at or slightly above capacity. In view of this situation, it would be difficult for these facilities to expand to accept patients except for emergency treatment. As part of their disaster planning, hospitals are required to have an area to receive disaster victims that would temporarily expand capacity. These receiving areas are commonly lobby or cafeteria type space that would be usable only for a brief period of time. Once stabilized, patients would be transferred to other facilities where beds are available.

CDC has convened a work group to prepare a patient triage plan for hospitals to use in emergency situations and this plan will be distributed to all New Jersey hospitals as soon as it is available.

Among hospitals capable of rapid expansion are the military hospital at Fort Monmouth (Paterson), the Veterans Administration hospitals in East Orange and Lyons, and some hospitals in the urban areas of Northern New Jersey. The number and location of beds available in acute care facilities change daily. The nine Advanced Life Support (ALS) Communications Centers provide an important service by monitoring the bed status of hospitals in their service areas. These centers also monitor hospital bypass and divert status and report this to the prehospital providers. This information is provided to the County Emergency Medical Service Coordinators to ensure optimum patient distribution. In a pandemic situation, it may be expected that long-term care facilities will increase their level of care, thus providing the urgent care in their facility while avoiding transfers to already overwhelmed acute care facilities.

In extreme emergencies, where hospitals cannot expand to meet needs and transfer to outlying facilities is impractical, space in

large public buildings will be made available. The New Jersey Army National Guard Armories with Medical Units and large public buildings such as schools, fire halls or first aid squad buildings may become the "non-traditional" healthcare facilities or emergency treatment facilities.

The primary guidance for establishing and maintaining emergency facilities is the American Red Cross' Disaster Services Regulations.

- Patient Evacuation

Official Aeromedical Regional Evacuation Points (AREPs) in New Jersey include Newark Airport, McGuire AFB, Lakehurst NAS, Morristown Airport, Atlantic City International Airport, Milltown Airport and Cape May County Airport. (However, it is unlikely that patient evacuations would take place during a widespread epidemic.)

- Additional Personnel

Health/Medical personnel can be augmented through inter-county EMS mutual aid, American Red Cross resources, N.J. National Guard personnel, interstate EMS mutual aid, and National Disaster Medical Assistance Teams (DMAT).

c. New Jersey Emergency Support Function (NJESF) #8: "Health and Emergency Medical Annex " of the State Emergency Operations Plan is the primary NJESF to be activated. (Appendix 8) This NJESF provides for the coordination and direction of State, county, municipal, private, non-profit and volunteer resources to support public health and medical needs during a disaster, including an influenza pandemic.

d. NJESF #8 coordinates with NJESF #9 (Law Enforcement) and NJESF #4 (Firefighting) for disaster scene activities, NJESF #6 (Mass Care) and NJESF #15 (Volunteers and Donations).

E. "Second Wave" *(Recrudescence of epidemic activity within several months following the initial wave of infection)*

a. Activities in surveillance, vaccine delivery, antiviral agents, communications, and emergency response will continue as needed until CDC declares that the pandemic is over.

b. Agencies will conduct reviews and assessment of their pandemic response and make adjustments as appropriate.

F. Pandemic over *(Cessation of successive pandemic "waves" accompanied by the return (in the U.S.) of the more typical wintertime "epidemic" cycle)*

1. Surveillance

a. Surveillance activities will return to the pre-pandemic stage.

b. The DHSS, IZD Program will complete collection and analysis of surveillance data from the pandemic and prepare a report that provides an epidemiologic description of the event, and makes recommendations for the future.

2. Vaccine Delivery

a. LHDs will assess their capacity to resume normal public health functions and report the assessment to local government authorities and the DHSS.

b. Enhanced systems for monitoring and documenting vaccine delivery will be discontinued.

c. The DHSS, VPD Program will prepare a report assessing the vaccine delivery response during the pandemic and provide recommendations for the future.

3. Antiviral Agents

a. Activities that were put in place to respond to the pandemic will be discontinued.

b. The DHSS VPD Program will prepare a report assessing the usefulness of antiviral agents during the pandemic and related issues and provide recommendations for the future.

4. Communications

a. The DHSS will use all communications vehicles to communicate to health care providers, public health agencies, and the public that the pandemic is over.

b. The DHSS Office of Communications will prepare a report assessing the strengths and limitations of the communications activities during the pandemic and related issues and provide recommendations for the future.

5. Emergency Response

a. The OEM, both state and locally will coordinate recovery efforts, damage assessment and needs assessment.

b. The DHSS Office of Emergency Medical Services will conduct an assessment of the state's ability to resume normal provision of emergency medical services.

c. The DHSS Office of the State Epidemiologist will coordinate a Department-wide initiative to assess the impact of the pandemic on health care resources, and will prepare a report, including reports from the IZD and VPD Programs, for the Commissioner and Governor with recommendations for the future.

IV. Responsibilities of the DHSS

In this section, those elements of the influenza pandemic plan that are the responsibility of the DHSS are summarized according to the five components of the plan: surveillance, vaccine delivery, antiviral agents, communications, and emergency response. The DHSS is committed to reviewing these responsibilities at least annually and updating as necessary. A check list of responsibilities of LHDs follow in section V.

A. Surveillance

Pre-pandemic Stage

1. Maintain current influenza surveillance system
   - Passive surveillance, all schools and long term care facilities, reporting >15% absenteeism/ILI.
   - Active surveillance with selected sample of schools and long term care facilities and all hospital emergency departments during the normal influenza season
   - Pilot test year round active surveillance for ILI with hospital Emergency Departments
   - Sentinel provider surveillance, with pilot for year round surveillance
   - Laboratory reporting of viral isolation
2. Ensure that the electronic disease reporting system under development will be designed to allow for rapid reporting of ILI to LHDs and the DHSS, should more extensive reporting become necessary during a pandemic.

Novel Virus Alert Stage

1. Continue with established passive and active surveillance systems, sentinel provider surveillance, and laboratory reporting..

2. If the novel virus alert occurs outside of the normal influenza season, activate those systems in place that are seasonally not operational.
3. Depending on scope and nature of the alert, implement targeted surveillance (e.g. travelers, certain age groups, additional sentinel providers.)
4. Ensure that laboratories are provided appropriate reagents from CDC to detect and identify the novel strain.
5. Report results of enhanced surveillance to CDC at least weekly.

Pandemic Alert Stage

1. Activate all aspects of enhanced surveillance.
2. Notify health care providers of recommendations to screen for influenza using rapid-screen kits, to culture appropriate patients, and to submit specimens to laboratory for viral isolation of patients with recent travel to areas where pandemic strain is circulating or with unusually severe symptoms.
3. Continue with all active and passive surveillance systems already operational.
4. Request, through the NJ Association of Pharmacists, reporting from pharmacists if they are filling usually large numbers of prescriptions for antiviral agents.
5. Activate surveillance of influenza deaths using the DHSS Center for Health Statistics' electronic death certificate system and by requesting reporting of ILI deaths by Medical Examiners.
6. Activate surveillance of ILI morbidity using the DHSS electronic hospital discharge data system.

Pandemic Stage

1. Continue with all surveillance systems already operational.
2. Provide regular analysis of surveillance data to provide information on the scope of the pandemic and to identify high-risk groups for targeting of education, vaccine delivery, and mobilization of health care and support personnel.

Second Wave

1. Continue with activated surveillance systems until CDC declares that the pandemic is over.

Pandemic over

1. Return surveillance activities to pre-pandemic level.
2. Complete analysis of pandemic surveillance data and prepare a report that provides an epidemiologic description of the event, and makes recommendations for the future.

B. Vaccine Delivery

Pre-pandemic Stage

1. Enhance routine coverage for all high risk groups by influenza and pneumococcal vaccine through:
    - Monitoring and enforcement of regulations requiring hospitals and long term care facilities to screen and offer influenza and pneumococcal vaccines to at risk patients.
    - Annual mailed reminders and other ongoing communications with health care providers (DHSS, Peer Review Organization of New Jersey).
    - Ongoing influenza vaccine clinics administered by LHDs.
2. Maintain ongoing communication with CDC, the Association of State and Territorial Health Officers (ASTHO), and manufacturers regarding vaccine production and distribution issues, and develop contingency plans as needed for projected shortages.
3. Establish recommendations for priority groups to receive vaccine in the event of vaccine shortages.
4. Assess capacity for excess storage of vaccine, and identify additional, secure, storage if necessary.
5. Obtain commitment from private sector health care delivery organizations to cooperate with government policies (e.g. priority groups) and directives.
6. Ensure that LHDs evaluate existing emergency response plans and supplement them as needed to ensure that the LHDs are prepared to activate emergency vaccination clinics.
7. Update the DHSS manual on vaccine delivery and ensure that all LHDs have a copy.
8. Obtain legal opinions on a number of issues that could impact on the distribution of influenza vaccine in a pandemic emergency.

Novel Virus Alert Stage

1. Obtain guidance from the federal government on as many issues as possible, including the development of a vaccine priority list (see Appendix 4).
2. Obtain and disseminate estimates of shipment delays and shortages of influenza vaccine.
3. Review current manual of standard procedures for vaccine administration/delivery and update as needed.
4. Convene the Influenza Pandemic Health and Medical Advisory Team to review the manual and other issues (e.g. storage capacity, personnel resources, security arrangements, sites for mass vaccination clinics.)

Pandemic Alert Stage

1. Ensure that all LHDs have established contingency locations for vaccination clinics and all procedures/staffing in place to operate clinics.
2. Reaffirm commitments from private sector organizations to provide vaccinations and related support in accordance with state and federal policies.

3. Ensure safe, secure delivery of vaccine locally, with support from the NJ National Guard, if necessary.
4. Notify health care community if two doses of vaccine are necessary, as determined by CDC.
5. Provide training statewide on all aspects of vaccine delivery, through the state's distance learning system and/or other means.
6. Establish and maintain a database to track vaccine distribution and administration in the public sector. Implement tracking system in the private sector if necessary.
7. Provide recommendations for priority groups to the Governor for approval.

Pandemic Stage

1. Ensure that groups are vaccinated in priority order.
2. Track vaccine inventory and administration as reported locally, and reallocate supplies among LHDs or other entities, if necessary.
3. Require submission of data on vaccine inventory and administration from the private sector, if the federal government designates the state as having authority to distribute all vaccine in the state.
4. Advise long term care facilities and hospitals of the importance of ensuring that all high-risk patients have been offered pneumococcal vaccine.
5. If the State Emergency Operations Center is activated, cooperate with all EOC procedures for storage and distribution of vaccine.

Second Wave

1. Continue with all policies and procedures of the pandemic, until CDC declares the pandemic over.

Pandemic Over

1. Discontinue enhanced systems for vaccine administration.
2. Assess capacity of LHDs to return to normal public health functions.
3. Prepare report assessing the vaccine delivery response during the pandemic and provide recommendations for the future, including reporting on the experiences of LHDs.

C. Antiviral Agents

Pre-pandemic Stage

1. Develop fact sheets on antiviral medications, similar to fact sheets currently in use for vaccines.
2. Monitor information on efficacy and availability of antiviral medications regularly, so that the medical community can be notified of appropriate information in the event of sudden increased demand.

3. Monitor recommendations from national groups on antiviral issues relevant to an influenza pandemic.
4. Obtain baseline data on use and inventories of antiviral agents (e.g., prescriptions written, prescriptions filled, pharmacy inventories).

Novel Virus Alert Stage

1. Continue as during the pre-pandemic stage.

Pandemic Alert Stage

1. Convene the Influenza Pandemic Health and Medical Advisory Team and request advice on designation of priority groups for receipt of anti-viral medications.
2. Continue monitoring clinical information and recommendations from national groups and manufacturers on efficacy and availability.

Pandemic Stage

1. Continue as during the pandemic alert stage
2. Request reporting by pharmacists of numbers of prescriptions being filled for antiviral agents and availability of the medications.
3. Request advice from the Influenza Pandemic Health and Medical Advisory Team on the need for rationing based on supply and demand for antiviral agents.

Second Wave

1. Continue as during the pandemic stage.

Pandemic Over

1. Prepare a report assessing the usefulness of antiviral agents during the pandemic and provide recommendations for the future.

D. Communications

Pre-pandemic Stage

1. Support state-wide efforts to improve routine influenza and pneumococcal vaccinations through coordination of media events, press releases, and related activities.
2. Ensure that contact lists of organizations are current and operational, in collaboration with the centralized mailing list under development for the DHSS.
3. Ensure that the emergency communications system under development for the Health Alert Network contains mailing lists and protocols is appropriate for pandemic influenza emergency health alerting.

Novel Virus Alert Stage

1. Notify the health care and public health communities of the novel virus alert and recommendations regarding protocols and priority groups.
2. In coordination with national groups, issue cautionary announcements and share relevant information with the public.
3. Increase activities to promote routine influenza and pneumococcal vaccinations.
4. Test existing communications systems (electronic, fax, phone) and make necessary changes.

Pandemic Alert Stage

1. Continue meetings of the Influenza Pandemic Health and Medical Advisory Team to review information about the emerging pandemic, and to make recommendations to the DHSS.
2. Increase outreach to the public on information about influenza (surveillance, availability of vaccine and antiviral agents, etc…)
3. Continue testing emergency communications systems and make changes where necessary.

Pandemic Stage

1. Activities already underway will continue.
2. If the State Emergency Operations Center is opened, follow protocols and directives for communications issued by the Joint Information Center, State EOC.

Second Wave

1. Continue with activities until CDC declares that the pandemic is over.

Pandemic Over

1. Prepare a report assessing the strengths and limitations of the communications activities during the pandemic and provide recommendations for the future.

E. Emergency Response

Pre-pandemic Stage

1. Provide assistance and ensure that LHDs have completed assessments for
   - Health care services, personnel, resources;
   - Essential community services.
2. Complete review of existing hospital disaster plans and provide template as needed, in conjunction with the state's bioterrorism initiative.
3. Conduct influenza pandemic table tops.

Novel Virus Alert Stage

1. Ensure that all notification lists and emergency response protocols , state and local, are up-to-date.
2. Provide education to emergency response coordinators as needed.

Pandemic Alert Stage

1. Continue with activities underway in the novel virus alert stage.

Pandemic Stage

1. Participate in the Emergency Operations Center activities and provide technical assistance.

Second Wave

1. Continue with activities underway in the pandemic stage

Pandemic Over

1. Provide technical assistance to state and local OEMs in recovery, damage assessment, and needs assessment.
2. Conduct an assessment of the impact of the pandemic on health care resources and prepare a report with recommendations.

V. Check lists for Local Health Departments

Note: All lists should include: primary contact/name, professional degree (MD, RN, PhD etc.) organizational title, organization , name, address, telephone during work hours, telephone after hours, cell phone, page number, fax number, e-mail.

Check List for Local Health Departments: **Organization and Responsibilities**

- ❑ Assign one staff (public health professional) to be influenza coordinator.
- ❑ Establish written chain of command that would be activated when a novel virus alert is announced, including identification of the individual with ultimate public health decision-making authority, the primary spokesperson during a pandemic, the primary liaison with the DHSS, and the primary liaison with the local EOC.
- ❑ Establish written procedures for documenting costs/expenses associated with pandemic influenza response by the agency.
- ❑ Establish public health emergency partners task force to include representatives from LHD, local EOC, hospitals, nursing homes, first responders, and others.
- ❑ Establish written mutual aid agreements with nearby local health departments based on assessment of potential needs.
- ❑ Provide document to DHSS assuring that LHD will comply with all DHSS and federal guidelines and directives in the event of a pandemic, including, adherence to priority groups for vaccine and sharing of vaccine as directed.

Check List for Local Health Departments: **Surveillance**

- ❑ Compile list of LHD staff with expertise in epidemiology and data management who could provide additional support to the DHSS and/or neighboring health departments in influenza surveillance during a pandemic.
- ❑ Compile list of physicians currently participating in CDC sentinel influenza surveillance network or willing to participate during a pandemic.
- ❑ Maintain support for DHSS routine active ILI surveillance by recruiting sample of schools and long term care facilities and all hospital EDs, in collaboration with LINCS site, and conducting outreach as necessary to ensure weekly reporting, according to DHSS protocol.
- ❑ Compile list of local courier services that could be contracted to transport clinical specimens to state laboratory during a pandemic.
- ❑ Develop and implement plan to improve general infectious disease reporting required of health care providers and health care institutions.

Check List for Local Health Departments: **Vaccine Delivery**

- ❑ Compile list of potential vaccine clinic sites
- ❑ Compile list of qualified LHD staff who can administer vaccine in the clinics and/or provide support functions (e.g., set-up, crowd control, data entry)
- ❑ Compile list of volunteers from other agencies/organizations, who can assist in vaccine clinics.
- ❑ Compile list of physicians in community who are/ would likely be giving vaccine.
- ❑ Conduct inventory of related supplies (e.g. wipes, syringes) and establish written procedures/ names of vendors to order additional supplies.
- ❑ Identify additional storage facilities (refrigerators) for vaccine.
- ❑ Review written SOPs for vaccine clinics and update if needed. (Revised manual should be available from DHSS in summer 2002.)
- ❑ Produce written estimates of the numbers of individuals potentially in targeted priority groups: age 65 and greater, primary health care providers, essential services personnel, medically high risk groups, emergency responders .
- ❑ Develop protocol for outreach to vaccine groups/individuals who are not likely to come to a clinic or see their physician (e.g., homebound, homeless, institutionalized such as those in jail)
- ❑ Evaluate current LHD program for providing/promoting routine flu and penumococcal vaccines, and implement improvement plan, as appropriate

Check List for Local Health Department: **Antiviral Agents**

- ❑ Survey pharmacies on policies for stocking antiviral agents and willingness to report increased anti-viral use.
- ❑ Survey long term care facilities on policies for prescribing antiviral agents, especially during an outbreak.

Check List for Local health Departments: **Communications**

- ❑ Assess LHDs capacity for providing information on the web, via e-mail, and through fax to the public, stakeholder organizations and individuals, and other public health agencies, and implement improvement plan as appropriate.
- ❑ Compile list of local media contacts, including TV, radio, and print media.
- ❑ Compile list of essential partner health care organizations and individuals, including hospitals, long term care facilities, physician practice groups, home health delivery groups, health care provider professional organizations, EMS personnel, Medical Examiners, voluntary organizations such as Meals on Wheels, Red Cross.
- ❑ Compile list of institutions potentially affected by a pandemic, including schools, colleges, correctional facilities, day care centers
- ❑ Compile list of businesses that will be essential partners in pandemic response, including funeral homes, large corporations, pharmacies.
- ❑ Compile list of essential service agencies, including police, fire, power company, water company, sanitation services, public transportation, home heating oil distributors
- ❑ Compile list of difficult-to-reach populations (e.g., non-English speaking, homeless, homebound) and develop plan for outreach to promote routine vaccination, including translation services and community advocacy groups
- ❑ Identify site, staffing, and source of equipment to staff a phone bank/information hotline

Check List for Local Health Department**: Emergency Response**

- ❑ Use CDC "Flu Aid" software to estimate impact of influenza on local population (morbidity, mortality, healthcare service utilization)
- ❑ Ensure that emergency response personnel have access to lists maintained by Communications staff.
- ❑ Convene or use existing Public Health Emergency Response Team, to include public health, emergency operations staff , EMS, physician reps, hospital reps, police to assess and update the local EOP according to needs of a pandemic.(Assessment to include – evacuation, mass casualty, transportation capacity, critical contacts and notification protocols - state, federal, local.)
- ❑ In collaboration with local Red Cross agencies, survey hospitals and pharmacies for inventories of antibiotics, ventilators, estimate shortfalls, and prepare list of recommendations for hospital and pharmacy ordering at the time of a pandemic alert.

IV. Acknowledgements

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Academy of Medicine of New Jersey
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American College of Emergency Physicians
Association of Professionals in Infection Control
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Capitol Health System, EMS
Dept. of Emergency Medicine, Morristown Memorial
Dept. of Medicine, Hackensack Medical Center
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Glaxo Wellcome, Inc.
Hanover Health Department
Home Care Council of NJ
Hospital Alliance of New Jersey
Hunterdon County Department of Health
Hunterdon Medical Center
Medical Society of New Jersey
Medical Transportation Association of NJ
Meridian Health System
MICU Program Administrators
Middlesex County Health Dept.
National Wholesale Druggists' Association
NJ American College of Emergency Physicians
NJ Medical School
NJ State First Aid Council
NJ State Police, Office of Emergency Management
NJ Academy of Family Physicians
NJ Association of County Health Officers
NJ Association of Health Plans
NJ Department of Agriculture
NJ Dept. of Environmental Protection
NJ Domestic Security Planning Group
NJ Food Council
NJ Health Officers Association
NJ Hospital Association
NJ Infectious Disease Society
NJ Local Boards of Health

NJ Medical School, Department of Pathology
NJ National Guard
NJ Pharmacist Association
NJ Poison Information & Education System
NJ Public Health Association
NJ School Nurses Association
NJ Society of Pathologist
NJ Society of Public Health Educators
NJ State Nurses Association
Newark Department of Health
Office of the State Medical Examiner
Peer Review Organization of New Jersey
Public Health Research Institute
Public Health: CARE
Roche Laboratories, Inc.
Rutgers College of Pharmacy
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Surveillance work group:
John Brook, MD, MPH, Managing physician, DHSS (Chair)
Rosalie Becce, Bayshore Community Hospital
Barbara Juzaitis, South Jersey Hospital Systems
John Beckley, MPH, Hunterdon County Department of Health
Jung Cho, VMD, PhD, Camden County Division of Health
Kenneth Dolan, Home Care Council of NJ
Nickolay Lipsky, MD, Bergen County Department of Health Services
Joanne Angarone, DHSS
Okee Suh, Peer Review Organization of NJ
Katherine Aquino, DHSS

Vaccine work group:
Chuck O'Donnell, MPH, Program Manager, DHSS (Chair)
Patricia Hart, MPH
Kathleen Casey, MD, Jersey Shore Medical Center
Sue Malec, RN, East Windsor Health Department
Ron Grunstra, Wyeth Lederle Vaccines
Lourdes McGonigle, RN, Raritan Bay Medical Center

Herb Roeschke, Cumberland/Salem Health Department
Joe Morris, NJ Pharmacists Association
Barbara Guidici, DHSS

Antiviral agents work group:
Laura Kahn, MD, Public Health Physician, DHSS (Chair)
George Hartpence, RPh, NJ Hospital Association
Jung Cho, DMV,PhD, Camden County Division of Health
Natalie Riso, Galaxo Wellcome
Dominick Iacuzio, PhD, Roche
Lori Hickman, Roche
Jeffrey Kuper, PharmD, Rutgers University
Tom Schafer, National Wholesale Druggists' Association
William Farrer, MD, NJ Infectious Disease Society

Communications work group:
Rita Manno, Director of Communications, DHSS (Chair)
Bill Jamison, Communications Specialist, DHSS
Dennis McGowan, Public Information Officer, DHSS
Ann Russell, Executive Assistant, DHSS
Charles McSweeney, Office of Emergency Medical Services, DHSS
Clifford Freund, Research Scientist, DHSS
Carol McGotty, NJ State School Nurses Association
Kathy Roye, Nurse Epidemiologist, Hunterdon Medical Center
Cari Miller, Peer Review Organization of NJ

Emergency Response work group:
Karen Halupke, DHSS (Chair)
Charles McSweeney. DHSS
Barbara Juzaitis, South Jersey Hospital Systems
Louise Kiceina, Capitol Health Systems EMS
William B. Felegi, DO, NJ Chapter, American College of Emergency Physicians
Joseph C. Spagnuolo, MD, Peer Review Organization of NJ
Peter Gross, MD, Hackensack University Medical Center
Bob Hannson, NJ State Police, Office of Emergency Management
Chris Hagerman, N J Department of Environmental Protection
Ann Russell, Executive Assistant, DHSS
Cliff Freund, Research Scientist, DHSS
Joe Kolakowski, Coordinator - Environmental Health Hazards, DHSS
Frank Goodstein, NJ State First Aid Council

Appendix 1
WHO Influenza Pandemic Staging
Comparison with CDC/DHSS Staging

An abbreviated discussion of the WHO's stages of an influenza pandemic follows. This is adapted from materials provided by CDC.[1]. A table comparing the WHO stages with the stages in the CDC Guidelines document is also provided.

1. Inter-Pandemic Period (Phase 0, Preparedness Level 0, No indications of any new virus type have been reported): influenza viruses, antigenically related to those recently circulating among humans, continue to evolve ("antigenic drift") and cause disease, typically during annual epidemics. Such epidemics may affect a local community, state, nation, or continent.

2. Inter-Pandemic Period - continued (Phase 0, Preparedness Level 1, Novel influenza strain identified in a single human case): "Novel" is used here to indicate that the hemagglutinin antigen (HA) and, in some instances, the neuraminidase antigen[NA] of the new virus differ markedly in antigenicity (as measured by serology) and amino acid sequence when compared with the HAs (and/or NAs) of viruses circulating among humans in the recent past; such changes in the virus have traditionally been referred to as "antigenic shifts". A substantial proportion of the population has little or no antibody to the novel virus. It should be emphasized here that detection of novel influenza viruses from human cases may prove to be relatively common events if improvements in virologic surveillance called for in this Plan are implemented. It should also be emphasized that not every "novel virus alert" will lead to a "pandemic", as illustrated by the 1976 swine flu incident at Fort Dix, N.J. Occasionally there are reports of isolation of a novel virus from humans without clear evidence of spread from person to person or of outbreak activity. Each report of a novel virus is investigated and, depending on what is learned, one may or may not advance to the next stage.

3. Novel Virus Alert (Phase 0, Preparedness Level 2, Human infection confirmed): an influenza A virus with a novel HA or a novel HA and NA is isolated from two or more humans, but the ability for the virus to readily spread from person-to-person and cause multiple outbreaks of disease leading to epidemics remains questionable.

4. Human Transmission Confirmed (Phase 0, Preparedness Level 3): this Preparedness Level exists when human transmission of the new virus sub-type has been confirmed through clear evidence of person-to-person

[1] The detailed WHO plan for an influenza pandemic is available at www.who.int/emc-documents/influenza/whocdscsredc991c.html

spread in the general population, such as secondary cases resulting from contact with an index case, with at least one outbreak lasting over a minimum two week period in one country. Identification of the new virus sub-type in several countries, with no explanation other than contact among infected people, may also be used as evidence for significant human transmission.

Before WHO declares this Preparedness Level, a WHO task force will have ensured that an international consultation has occurred: first, to ensure that the assessment of the new virus' pandemic potential has not overlooked any other explanation, including purposeful exposure of humans in several locations to an influenza virus (e.g., an act of terrorism), or an unusual ecological situation with an animal vector spreading virus to humans in different locations; and second, to be assured that the potential of the virus to cause lower respiratory tract disease and/or other complications is evident.

5. Confirmation of onset of pandemic (Phase 1): A pandemic will be declared when the new virus sub-type has been shown to cause several outbreaks in at least one country, and to have spread to other countries, with consistent disease patterns indicating that serious morbidity and mortality is likely in at least one segment of the population. Onset shall be defined as that point in time when WHO has confirmed that a virus with a new HA sub-type compared to recent epidemic strains is beginning to spread from one or more initial foci. Depending on the amount of early warning, this phase may or may not have been preceded by the above-described series of increasing levels of preparedness.

6. Pandemic (Phase 2, Regional and multi-regional epidemics): Outbreaks and epidemics are occurring in multiple countries, and spreading region by region across the world. Once a pandemic has been declared, full activation of the response plan will commence. The difference between Phase 1 and Phase 2 has little to do with actions of the influenza virus (the virus is already causing outbreaks in multiple locations during Phase 1) but rather reflects the amount of time it will take to mobilize a full scale response and prepare the President to declare a pandemic.

7. End of First Wave (Phase 3): Influenza activity in initially affected countries/regions has stopped or reversed while outbreaks of the new virus are still occurring elsewhere.

8. Second or Later Waves (Phase 4): A second outbreak of disease within the same geographic area that occurs within 3-9 months after the initial "wave" of disease. Such "second waves" have often been observed in previous pandemics, are caused by essentially the same strain of novel virus, and may affect different segments of the population than the "initial

wave". The reasons for distinct "waves" of infection are not fully understood, but they do underscore the importance of continuing control efforts for at least several months after the initial wave has subsided.

9. Post-Pandemic (Phase 5): WHO will declare when the Pandemic Period has ended, which is likely to be after 2-3 years. The indications for this will be that indices of influenza activity have returned to essentially normal inter-pandemic levels, and that immunity to the new virus sub-type is widespread in the general population. Major epidemics would not be expected again until antigenic variants begin to emerge from the prototype pandemic strain.

While there is no way to identify exactly when each of the phases will occur, it is estimated that an average pandemic could progress from a Novel Virus Alert to a Pandemic in a matter of months. This time frame could be much longer if the disease is not readily contagious, or it could be shorter if the virus spreads quickly.

The phases described above have been developed to help authorities determine what must be done in conjunction with the emergence of a novel virus. It's important to understand that the virus will spread on its own time line, which may or may not fit into these phases. For example, we may not be aware of a novel virus until after it has caused widespread disease. For this reason, pandemic plans must include the flexibility to respond to the specifics of each pandemic virus.

Comparison of WHO stages and CDC/DHSS Phases

WHO stage	CDC/DHSS phase
Inter-pandemic Period (Phase 0, Level 0)	Pre-pandemic
Inter-pandemic Period (Phase 0, Level 1-2)	Novel Virus Alert
Human Transmission Confirmed (Phase 0, Level 3)	Pandemic Alert
Confirmation of Onset of Pandemic Pandemic End of First Wave (Phases 1-3)	Pandemic
Second or Later Waves (Phase 4)	Second Wave
Post-pandemic (Phase 5)	Pandemic over

Appendix 2

Acronyms

ACIP: Advisory Committee on Immunization Practices

CDC - Centers for Disease Control and Prevention

CHAINS – Community Health Alert and Information Networks

DHSS – New Jersey Department of Health and Senior Services

EMS - Emergency Medical Services

EOP - Emergency Operations Plan

EOC - Emergency Operations Center

HAN – Health Alert Network

ILI – Influenza Like Illness

IZD - Infectious and Zoonotic Diseases Program

LHD - Local Health Department

LINCS– Local Information Network and Communications Systems

OLH - Office of Local Health

PHEL - Public Health and Environmental Laboratories

UMDNJ- University of Medicine and Dentistry of New Jersey

VFC – Vaccines For Children

VAERS – Vaccine Adverse Events Reporting System

VIS – Vaccine Information Statements

VPD - Vaccine Preventable Diseases Program

WHO – World Health Organization

Appendix 3

Organizational Chart
New Jersey Department of Health and Senior Services

Appendix 4

Unresolved Federal Decisions: Vaccines

- Will the federal government/CDC pay for purchase of all vaccine needed for entire population regardless of insurance and ability to pay status?
- Will federal government/CDC pay for contracted ordering/warehouse facilities for states similar to VFC vaccine storage and distribution system?
- Will federal government/CDC permit drop shipments similar to varicella ordering?
- Will federal government/CDC purchase newer mass immunization devices such as Ajet guns@ for state health departments?
- Will federal government/CDC permit individual physicians, hospitals or pharmacies to order vaccine directly from drug companies?
- Will the CDC/ACIP recommend the universal administration of pneumococcal vaccine for 2nd and 3rd tier priority patients who cannot get influenza vaccine?
- Will CDC provide a guideline manual for states for management of pandemic influenza?
- Will influenza be covered under National Vaccine Injury Compensation Act?
- Will VIS be mandatory or voluntary by providers?
- Will CDC require doses administered by age and dose number reporting?
- Will VAERS reports go directly to FDA/VAERS or through the state immunization programs?
- Will the federal government/CDC provide additional infrastructure funds to states for pandemic control efforts beyond vaccine purchase?
- Will the FDA approve nasal mist influenza vaccine delivery devices?

Appendix 5

Partner Organizations: Communications

Influenza Pandemic Contact List

- NJ Hospital Association
- All NJ hospitals' directors of communication
- Hospital infection control practitioners
- Northern and Southern NJ chapters of the Association for Professionals in Infection Control and Epidemiology
- NJ Hospital Alliance
- University Health Systems
- Health Care Association of NJ
- NJ Infectious Disease Society
- Medical Society of New Jersey
- NJ Chapter American College of Emergency Physicians
- New Jersey Chapter American Academy of Pediatricians
- NJ Academy of Family Physicians
- The three NJ Medical Schools
- Health related schools at the University of Medicine and Dentistry of New Jersey
- Academy of Medicine
- State Board of Medical Examiners
- Board of Public Utilities and the utilities themselves (gas, electric, water, telephone),
- Public Health Nurses Association
- NJ State Nurses Association
- NJ State School Nurses Association
- PTA/PTOs at state and local levels.
- Visiting Nurses Associations
- Society for Public Health Education (SOPHE)
- NJ Public Health Association
- Health officers in all local health departments
- NJ Local Boards of Health Association
- NJ Chapters, American Red Cross
- Religious Organizations
- Funeral Directors
- Federal agencies, including the Centers for Disease Control and Prevention (CDC)
- Neighboring Jurisdictions (NY, NYC, Pennsylvania & Delaware)
- Peer Review Organization of New Jersey (PRONJ)
- Pharmacists (two statewide organizations)
- Pharmaceuticals companies
- The HealthCare Institute of NJ
- Long Term Care Associations
- Long term care facilities
- NJ Association of Health Plans
- Media (Broadcasters & Press Associations)

- AARP
- County NJEASE Offices
- WIC and Welfare Offices
- First Responders (volunteers, paid, licensed)
- State and County Emergency Response Management Teams
- County Medical Societies
- Osteopathic Society

Elected Officials, including Governor, Legislators, Freeholders, County Executives and Mayors

Appendix 6

Impact of an Influenza Pandemic on New Jersey's Population:
Estimates using "FluAid" Software

Appendix 7

Emergency Operations Plan Emergency Support Function #13

Communications Annex

Appendix 8

Emergency Operations Plan Emergency Support Function #8

Health and Medical Annex

STATE OF NEW JERSEY

EMERGENCY OPERATIONS PLAN
EMERGENCY SUPPORT FUNCTION #8
HEALTH & EMERGENCY MEDICAL ANNEX

i. PRIMARY AGENCY:

New Jersey Department of Health and Senior Services

ii. SUPPORT AGENCIES:

NJ Emergency Medical Services Council
NJ State First Aid Council
Medical Transport Association of NJ
MICU Program Administrators Association
National Disaster Medical System
NJ Trauma Center Council
The Burn Center at St. Barnabas
Emergency Nurses Association
NJ Department of Environmental Protection
NJ Department of Military & Veterans' Affairs
NJ Department of Human Services
NJ Office of Emergency Management
NJ Office of the Medical Examiner

I. INTRODUCTION

A. Purpose

The purpose of this New Jersey Emergency Support Function (NJESF) is to provide for the coordination and direction of State, county, municipal, private, non-profit and volunteer resources to support public health and medical needs preceding, during or following a major or catastrophic disaster.

B. Scope

1. Evaluates the health threat to emergency workers and the general public;

2. Provides overall coordination for State-wide Emergency Medical Services (EMS) response;

3. Implements, as required, the necessary controls to prioritize the allocation of resources to meet requests which temporarily exceed local assets;
4. Provides coordination for obtaining and distributing resources from the Federal level in support of local agencies.

5. Involves supplemental assistance to local governments in identifying and meeting the health and medical needs of victims of a major emergency or disaster. This support is categorized in the following functional areas:

   a. Assessment of health and medical needs;

   b. Health surveillance;

   c. Health care personnel;

   d. Health/medical equipment and supplies;

   e. Patient evacuation;

   f. In-hospital care;

   g. Food/drug/medical device safety;

   h. Worker health safety;

   i. Biological/radiological hazards;

   j. Mental Health;

   k. Vector control;

   l. Potable water/wastewater disposal and solid waste disposal;

   m. Victim identification/mortuary services.

II. POLICIES

A. NJESF #8 is implemented upon the activation of the NJ Emergency Operations Plan or upon the appropriate county-level request for assistance.

B. This annex fully supports and implements the Federal Response Plan, the State of New Jersey Emergency Operations Plan, Public Law 93-288, as amended, and the State of New Jersey Emergency Management Act. This annex provides for the coordination of Public Health and EMS support to county and municipal governments, private and volunteer organizations in the execution of their emergency operations plans.

C. All EMS and public health resources are coordinated through the State EOC when the Health & Emergency Medical Annex is activated.

D. In accordance with assignment of responsibilities in NJESF #8, and further tasking by the primary agency, each support organization participating under NJESF #8 contributes to the overall response but retains full control over its own resources and personnel.

E. NJESF #8 does not release medical information on individual patients to the general public to ensure patient confidentiality protection as required by state law.

F. Appropriate information on casualties/patients is provided to the American Red Cross (ARC) for inclusion in the Disaster Welfare Information (DWI) System for access by the public.

G. Requests for recurring reports of specific types of medical and public health information are submitted to NJESF #8 as soon as information requirements are identified to enable development and implementation of procedures for recurring Situation Reports (SITREP's).

H. The Joint Information Center (JIC), as defined in NJESF #13, is authorized to release at the discretion of Director, State Coordinating Officer (SCO) or State Emergency Public Information Officer general medical and public health information to the public.

I. All municipal, county, private and volunteer organizations participating in response operations report public health and medical requirements to their next higher reporting authority.

1. SITUATION

A. Disaster Condition

1. This annex is to be implemented when local resources, including normal mutual aid, have been overwhelmed by the size of a Mass Casualty Incident (MCI) or a Public Health threat.

2. The sudden onset of a large number of victims would stress the county's medical system necessitating time-critical assistance from the State government. A disaster would also pose certain public health threats, including problems relating to food, vectors, water, wastewater, solid waste, and mental health effects.

3. Hospitals, nursing homes, pharmacies and other medical/health care facilities may be severely damaged or destroyed during a catastrophic or major disaster. Those facilities which service the disaster event may be rendered unusable or only partially usable because of a lack of utilities (electricity, water, sewer, gas, telephone, etc.). Medical and health care facilities which remain in operation and have the necessary utilities and staff are likely to be overwhelmed by the "walking wounded" and seriously injured victims who are transported there in the immediate aftermath of the event. Medical personnel, supplies (including pharmaceuticals) and equipment are also likely to be in short supply. Disruptions in local communications and transportation systems could prevent timely resupply.

4. A major emergency resulting from an explosion, toxic gas release or terrorist deployment of Weapons of Mass Destruction (WMD) could occur but might not damage the local medical system. However, such an event could produce a large concentration of injuries that could overwhelm the local or regional medical system.

B. Planning Assumptions

1. NJESF #8 is based on a worst case scenario.

2. The nature and extent of a disaster requires a pre-planned, immediate and automatic response from the entire NJESF #8 organization. This response will be based upon agencies following their SOPs and expanding upon the established procedures and response networks in place and used on a daily basis. Implementation of procedures not normally followed, or use of personnel untrained and inexperienced in field EMS policies and procedures is to be avoided.

3. Standard communications equipment and practices may not be operable in the disaster.

4. Resources within the affected areas are inadequate to clear casualties or treat them in local hospitals.

5. Additional resources are required throughout the disaster area.

6. Operational necessity requires air transport of patients from disaster scene.

7. Damage to infrastructure and industrial facilities result in toxic environmental and public health hazards.

8. Disaster conditions produce a need for mental health crisis counseling.

9. Disruption of the infrastructure increases the potential for disease and injury.

10. The Disaster Welfare Information (DWI) is capable of responding to one million disaster welfare inquiries, from around the world, within 30 days of a disaster's onset.

11. Many of the more seriously injured are transported to hospitals outside the disaster area, some of them hundreds of miles away through the National Disaster Medical System (NDMS).

2. CONCEPT OF OPERATIONS

A. General

1. New Jersey's EMS needs are served by a mix of volunteer and paid EMS organizations. EMS functions are carried out by local EMS organizations using area hospital emergency departments (ED) for treatment of the sick and injured. Local units are supported by those from surrounding areas and advanced life support units from their local MICU hospital and then by mutual aid assigned by N.J. State First Aid Council (NJSFAC) District Mobilization Coordinators, County Office of Emergency Management EMS Coordinators, ALS dispatch and appropriate County Communications Centers according to local Standard Operating Procedures. In areas not affiliated with NJSFAC, mutual aid is requested and assigned in accordance with municipal or county EOP's.

   University of Medicine and Dentistry of New Jersey (UMDNJ) -University Hospital EMS Newark and Camden , Jersey City Medical Center EMS and Robert Wood Johnson University Medical Center EMS all maintain Special Operations Groups, comprised of EMS personnel, which can respond to Mass Casualty Incidents.

There are Disaster Medical Assistance Teams (DMAT) that can be deployed through NDMS. These teams are made up of volunteers from the EMS and medical community and are available to augment medical health care services in a disaster. New Jersey DMAT can be used as a resource in non declared events as that team will not be activated for federally declared disasters in New Jersey.

The Level 1 Trauma Center at University Hospital, Newark maintains a ATrauma Go Team@ of trauma physicians and nurses trained to respond to incidents where lifesaving surgical intervention or advanced trauma expertise is required. The AGo Team@ also works with the medical component of NJ Urban Search and Rescue task Force 1.

St. Barnabas Health Care System maintains a staff of burn nurses and paramedics trained in Advanced Burn Life Support as well as a dedicated Burn Transport System. These trained personnel and their equipment are available to respond to any incident involving large numbers of burn casualties.

A Memorandum of Understanding (MOU) is in place between UMDNJ - University Hospital EMS and the Fire Department of the City of New York (FDNY) EMS, for mutual aid coordination in disaster conditions.
A copy of the MOU is available in the State Emergency Operations Center (EOC).

Public Health operations are carried out by municipal or county personnel with mutual aid from neighboring communities, in accordance with local and county Emergency Operating Plans.

2. EMS mutual aid units utilize appropriate hospital facilities in an ever widening circle to prevent overloading those hospitals closest to the disaster scene. Hospital routing is coordinated by the EMS Branch Director at the incident command post using information obtained by the local dispatch center. If a situation requires EMS resources exceeding those available in the affected District, the State, Regional and appropriate NJSFAC Mobilization Coordinators are notified. The Regional Representative, NJDHSS OEMS, and appropriate County OEM EMS Coordinators are also notified. These individuals coordinate additional EMS units and resources.

3. In the event the State EOC is activated, the NJOEM EMS/BLS Coordinator and the Director, Office of Emergency Medical Services (OEMS) report there to coordinate BLS, and ALS respectively. New Jersey Department of Health and Senior Services (NJDHSS) Emergency Coordinator coordinates medical personnel, supplies, pharmaceuticals and information requests forwarded to the State EOC. When resources within New Jersey are depleted, assistance is requested through the U.S. Public Health Service (USPHS) in the State Emergency Operations Center or Disaster Field Office (DFO), when opened.

4 Local and County EMS and Public Health Coordinators receive reports and requests from the EMS Branch Director at the scene. EMS and Public Health resources are dispatched to the affected area as needed without stripping any particular area of the state, of EMS coverage.

5. All acute care hospitals in New Jersey have disaster plans designed to enable them to expand to accept additional patients. Patients may also be transported to distant hospitals through the facilities of the NDMS Federal Coordinating Centers, at the

Veterans Affairs (VA) NJ Health Care System, Lyons (North and Central Regions).

6. Direction and control is provided by the local EMS Incident Commander. Coordination is provided by the County EMS/District Mobilization Coordinator or EMS Coordinator at the State EOC.

7. Health and medical information is exchanged through the local, county and State EOC's and liaison occurs at these facilities. The NJDHSS and the local health departments provide for health surveillance in the affected area.

8. NJESF #8 coordinates with NJESF #9 (Law Enforcement) and NJESF #4 (Firefighting) for disaster scene activities and NJESF #6 (Mass Care) to provide EMS coverage at congregate care shelters. They also coordinate with the NJESF #1 (Transportation) to obtain buses or other appropriate vehicles to transport ambulatory persons with minor injuries to medical care facilities.

9. Assigning of medical staff to Casualty Collection Points (CCPs) is a local and county responsibility and is done by the EMS Branch Director.

10. The county Medical Examiners handle identification of multiple fatalities assisted by the State Medical Examiner's Office.

11. Emergency worker health and safety is overseen by the Incident Safety Officer

12. The level of radiation exposure is determined by county and State radiological teams. In the event of a chemical incident, monitoring will be handled by local Hazardous Materials Teams, County Health Departments, NJDEP Emergency Response Specialists or members of the USEPA Emergency Response Team. Treatment of radiologically or chemically contaminated victims is provided at the scene by HazMat trained EMS or HazMat team personnel and at acute care hospitals after decontamination takes place.

B. Organization

1. New Jersey's EMS needs are served by a mix of volunteer and paid organizations configured in a two tier system of Basic Life Support (BLS) and Advanced Life Support(ALS) functions. Advanced Life Support services are staffed by Mobile Intensive Care Paramedics (MICP) or Mobile Intensive Care Nurses (MICN) and operate through a system of on-line medical command with a base station physician, limited standing orders and radio failure protocols.

2. There is also in place the JEMSTAR Helicopter Response Program. It is operated by the New Jersey State Police in cooperation with the N.J. Department of Health and Senior Services, Office of Emergency Medical Services (OEMS), Virtua Hospital System, and the Level 1 Trauma Centers at University Hospital in Newark and Cooper Medical Center in Camden. These units are airborne MICU's staffed by State Police pilots and specially trained flight nurses and flight paramedics. They presently operate from the Virtua Hospital facility in Voorhees Township, N.J. which is called "SOUTHSTAR" and University Hospital, Newark, which is called "NORTHSTAR". Mutual aid is provided on a regular basis by hospital based programs in Pennsylvania, Delaware and New York as well as by the US Coast Guard, New York City Police Department (NYPD) aviation unit and

if required, the Maryland State Police. The NJ Army national Guard has in service an Air Ambulance Detachment with six helicopters. All EMS helicopter operations in New Jersey are coordinated by two EMS RCCs, Regional Emergency Medical Communications System(REMCS) in Northern new Jersey and the Gloucester County Communications Center (G1) in Southern New Jersey.

3. Local health services are provided by a municipal, county or regional health agency. Each municipality and county appoints a Public Health Coordinator who coordinates a response to the threat of, or during an actual emergency. Information and resource requests emanate from the most local level and are forwarded to NJESF #8 in the State EOC/DFO through the county.

4. The NJDHSS is represented in the State EOC by the Department Emergency Coordinator. The Emergency Medical Service Group is represented in the NJDHSS Command Center or the State EOC by the NJ EMS BLS Mobilization Coordinator and the Director, NJDHSS, OEMS, or their designated representatives.

5. All requests for resources in excess of local capacity are directed through the County EOC's to NJDHSS or EMS Coordinator in the State EOC. These coordinators prioritize and coordinate the requests.

C. Notification Procedures

1. Initial notification of a disaster or potential disaster is made to the State Office of Emergency Management by telephone (609)-882-2000 (24 hour coverage)

2. The Deputy State Director determines State Emergency Operating Center activation, the notifications to be implemented and the level of EOC staffing. The Deputy State Director (or alternate) notifies the Governor's representative and the Attorney General's on-call Deputy of the emergency event. The State Office of Emergency Management notifies the appropriate Emergency Coordinator (or alternate) of the supporting agencies by telephone call. The Emergency Coordinator then notifies the appropriate personnel within their agency.

3. Each agency or organization with responsibilities under NJESF #8 ensures they have a primary and alternate notification system.

D. Response Actions

1. Immediate Actions

a. When a determination is made that NJESF #8 needs to be activated, the State Office of Emergency Management notifies government, volunteer and private organizations. Specifically, the NJDHSS Emergency Coordinator, NJ State EMS BLS Mobilization Coordinator and Director, NJDHSS are notified.

b. Response agencies ensure that necessary emergency operating facilities, resources and reporting systems are established.

c. Each response agency establishes communications with the next higher reporting agency and provides an initial situation report.

d. The EMS Branch Director prepares forecasts for anticipated additional medical supply needs. The local health department and NJDHSS, in conjunction with the affected hospitals, will coordinate additional medical supplies, as needed.

e. The local MICU/ALS communications center or county communications center will notify hospitals in expected impact area are notified and plans are finalized for possible transfer of patients to outlying hospitals or alternate health care facilities.

f. The local MICU/ALS communications center or county communications center will notify designated level 1 and Level 2 Trauma Centers, Burn Treatment Facilities and Aeromedical Dispatch Centers in New Jersey and adjacent states if necessary.

g. The EMS Branch Director will direct the local MICU/ALS communications center or county communications center to alert mutual aid EMS units and advise them of the situation.

h. The EMS Branch Director will establish liaison with NJESF #1 (Transportation) for availability of resources for possible movement of large numbers of injured persons or medical supplies.

i. The local MICU/ALS communications center or county communications center will place Critical Incident Stress Management Teams (CISM) teams on alert.

j. The EMS Branch Director provides support to all other NJESF's on an as needed basis.

k. The Deputy State Director advises Area Emergency Managers and the National Disaster Medical System of situation if the number of casualties is expected to exceed State hospital capabilities.

l. The NJDHSS will request DMAT through USPHS, if necessary.

m. The AMet-Tag System@ is the official triage tag for use during MCIs within the State of New jersey.

2. Ongoing Actions

a. The State Mobilization Coordinators or NJOEMS Director, through the State EOC when activated, coordinates with the counties to facilitate response activities and the establishment of staging areas for medical and EMS resources.

b. Response agencies maintain continuous surveillance over the availability of resources and report shortages to the State EOC through Regional Communications Centers or county EOC's.

c. As congregate care shelters are established, provide personnel for monitoring sanitary conditions and conduct disease surveillance

inspections. The ARC will coordinate and provide medical care services at the shelters.

d. Collect, collate and analyze information related to the incident and provide specialized information concerning the effects on food and water supplies and to emergency workers and the public. Establish liaison with NJESF #13 (Public Information) for release of health announcements.

e. The NJDHSS will coordinate with the local health department to assess the satisfaction of vital medical resource shortfalls such as vaccines and personnel through the Emergency Response Team in the State EOC or DFO. The National Disaster Medical System can be activated for medical supplies, personnel and transport of stabilized victims to hospitals outside the disaster area. Deployment of New Jersey National Guard air assets and medical personnel would be coordinated with NJDMVA.

f. Administrative support for individuals assisting NJESF #8 is provided by their parent agency.

g. After action reports are submitted by local and county OEM EMS Coordinators to the NJSP Regional Coordinators who then forward them to the State EOC.

V. RESPONSIBILITIES

A. Primary Agency: New Jersey Department of Health and Senior Services

1. Annually review the Plan, including other annexes, submit comments as appropriate and revise this annex as necessary.

2. Develop additional plans, SOP's or guidance in sufficient procedural detail to insure successful response and recovery during a disaster.

3. Designate representatives for the State EOC.

4. Participate in training and exercises at the Federal and State level.

5. Ensure personnel are properly trained to implement this plan.

6. Maintain current internal personnel notification/recall rosters and implementation procedures as an integral part of NJESF #8 SOP's.

7. Develop emergency standards and guidelines, and provide technical assistance to State agencies, regions, counties, and municipalities on general health and sanitation problems. Furnish the public with emergency information relevant to these problems.

8. Coordinate statewide health and sanitation operations including the monitoring of health situation reports from county, regional and municipal health officials.

9. Provide clinical and environmental laboratory support as needed.

10. Initiate request for assistance from federal and private health agencies and establish liaison with federal, state and private health agencies. Coordinate support of NJESF's through the State Coordinating Officer (SCO).

11. Coordinate the acquisition of medical, health and EMS personnel, equipment and supplies.

12. Provide information on damage to health care and medical facilities. Oversee evacuation of hospitals and health care facilities. Provide situation reports on vital statistics, casualties and health problems. Monitor for epidemics and provide immunization activities.

13. Identify health and EMS resource requirements and provide for the prioritizing or allocation of available supporting resources, if required.

14. Serve as the focal point for guidance and assistance to other State agencies, counties, municipalities, private and volunteer organizations in all matters pertaining to health and emergency medical services.

15. Publish After Action Reports (AAR's).

16. Ensure the following lists and documents are maintained and available when needed:

    a. Aeromedical/Trauma Centers

    b. Advanced Life Support (ALS) Providers

    c. Mobile Intensive Care Unit (MICU) Trauma and Triage Protocols

    d. ALS MICU Dispatch Protocols

    e. County Emergency Medical Coordinators

    f. Licensed Ambulance and Mobile Assistance Vehicle providers

    g. New Jersey Acute Care Facilities

    h. New Jersey First Aid Council Directory

17. Ensure, in concert with NJOEM, that this annex is coordinated with the following plans. Copies are available on the EOC:

    a. NJSFAC Mobilization Plan
    b. Port Authority of NY and NJ Newark Airport Disaster Plan

    c. NDMS Plans, VA NJ Health Care System, VA Medical Center Philadelphia, PA.

B. Support Agencies

1. Annually review the plan and provide comments to the primary agency relating to this annex and associated SOP's and guidance.

2. Participate in Federal and State exercises.

3. Provide the primary agency with points of contact at the State level for coordination of planning and response.

4. Provide representatives as required to the State EOC.

C. Support Agencies, Specific:

1. **State Medical Examiner**:

   a. Develop and maintain emergency procedures for multiple fatality incidents.

   b. Supervise identification of multiple fatalities.

2. **Department of Environmental Protection**:

   a. Identify and monitor radiological hazards in the disaster area.

   b. Identify and monitor chemical hazards in the disaster area.

3. **Department of Human Services**:

   Activate the State Mental Health Emergency Response Plan.

4. **Department of Military and Veterans' Affairs**:

   Provide air ambulances, medical personnel, equipment and supplies.

5. **Medical Transport Association of New Jersey**:

   Provide a list of available private EMS resources and a representative to report to the State EOC or DFO, if requested.

6. **New Jersey State First Aid Council**:

   a. In association with the New Jersey Office of Emergency Management appoint an Emergency Medical Service Basic Life Support Coordinator.

   b. Provide for the Statewide mobilization of Basic Life Support units through District and Regional Mobilization Coordinators.

7. **New Jersey Office of Emergency Management:**

   a. In concert with the New Jersey First Aid Council, appoint a Emergency Medical Service Basic Life Support Coordinator.

   b. Ensure, in concert with New Jersey Department of Health, that this annex is coordinated with the following plans:

(1) NJSFAC Mobilization Plan

(2) Port Authority of NY and NJ Newark Airport Disaster Plan

(3) NDMS Mobilization Plan (DVA)

VI. RESOURCE REQUIREMENTS

A. Supplies and equipment to support EMS operations are obtained from local sources whenever possible. In large scale incidents, supplies are made available through Federal agencies.

Plans should be made locally to obtain equipment from suppliers during off hours in emergency situations. Hospitals may be able to provide limited quantities of supplies in emergency situations.

B. As part of their disaster planning, hospitals must make space to receive victims of a mass casualty incident. Patients would be transferred to other facilities where beds are available.

Among hospitals capable of rapid expansion are the military hospitals at Fort Dix (Walson) and Fort Monmouth (Paterson), VA Hospitals in East Orange and Lyons and some hospitals in the urban areas of Northern New Jersey. The number and location of available beds changes daily. Advanced Life Support communications centers provide an important service by monitoring the bed status of hospitals in their service areas. This information is provided to the Emergency Medical Service Branch Director to ensure optimum patient distribution. In the event of a Mass Casualty Incident, NDMS, through the FCCs in Lyons and Philadelphia, will have the lead role in locating beds at out of state facilities for excess patient load and the interstate transport of those patients. This responsibility will include beds in specialty areas such as burns, neurological, pediatric ICU, etc.

In extreme emergencies, where hospitals cannot expand to meet needs and transfer to outlying facilities is impractical, space in large public buildings is made available. Priorities would be New Jersey Army National Guard (NJARNG) Armories with Medical Units assigned and large public buildings such as fire halls or first aid squad buildings. These facilities will be manned by Red Cross, DMAT, National Guard personnel and personnel from appropriate public and private health care agencies, with the assistance of NJDHSS and the various professional boards.

C. Aero Regional Evacuation Points (AREP's) in New Jersey include Newark Airport, McGuire AFB, Lakehurst Naval Air and Engineering Facility, Mercer County Airport, Morristown Airport, Atlantic City International Airport, Millville Airport and Cape May County Airport.

D. Health/Medical personnel can be augmented through inter-county EMS mutual aid, American Red Cross resources, NJ National Guard personnel, interstate EMS mutual aid and National Disaster Medical System personnel, including NJ-1 Disaster Medical Assistance Team (NJ DMAT-1).

VII. AUTHORITIES AND REFERENCES

A. Emergency Management Act, N.J.S.A. App. A:9-33 et seq.

B. New Jersey Public Law 1970, Chapter 33 (N.J.S.A. 13:1D-1)

C. New Jersey Public Law 1975, Chapter 232 (N.J.S.A. 13:1D-29)

D. US Public Law 93-288, The Disaster Relief Act of 1974

E. New Jersey Public Law 1947 (N.J.S.A. 26A-1 et seq.)

F. New Jersey Administrative Code, Title 8--Chapter 51 (N.J.A.C. 8:51)

VIII. ACRONYMS/ABBREVIATIONS/DEFINITIONS

AAR	After Action Report
ALS	Advanced Life Support
ARC	American National Red Cross
ARNG	Army National Guard
AREP	Aero Regional Evacuation Point
BLS	Basic Life Support
CCP	Casualty Collection Point
CISM	Critical Incident Stress Management
District	Group of First Aid Squads in a particular geographic area
DFO	Disaster Field Office
DVA	Department of Veterans Affairs (Federal)
DWI	Disaster Welfare Information System (ARC)
ED	Emergency Department
EMS	Emergency Medical Service
EMSBD	Emergency Medical Service Branch Director
EMSSD	Emergency Medical Service Sector Director
EOC	Emergency Operating Center
EOP	Emergency Operations Plan
ERT	Emergency Response Team
FEMA	Federal Emergency Management Agency
JEMSTAR	New Jersey Aeromedical Evacuation System
JIC	Joint Information Center
MCI	Multiple Casualty Incident
MICN	Mobile Intensive Care Nurse
MICP	Mobile Intensive Care Paramedic
MICU	Mobile Intensive Care Unit
MOU	Memorandum of Understanding
NDMS	National Disaster Medical System
NJDMVA	New Jersey Department of Military and Veterans' Affairs
NJDEP	New Jersey Department of Environmental Protection
NJDHSS	New Jersey Department of Health and Senior Services
NJESF	New Jersey Emergency Support Function
NJOEM	New Jersey Office of Emergency Management
NJOEMS	New Jersey Office of Emergency Medical Services
NJSFAC	New Jersey First Aid Council
NORTHSTAR	North Area Medevac Helicopter
PEOSH	Public Employee Occupational Safety and Health
RCC	Regional Communications Centers
SOP	Standard Operating Procedure

SOUTHSTAR	South Area Medevac Helicopter
USEPA	United States Environmental Protection Agency
USPHS	United States Public Health Service